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IN THIS ISSUE

There's so much sales-worthy information jam-packed into the 40 pages of this issue that it almost defies detailing. To help readers locate and track down the topics they're most interested in, we've worked out the following "sampler":

* * *

Commercial Selling Methods

Running a "one-man" commercial sales organization, and making money at it, means you've got to have a lot of "angles." A dealer in Davenport, Iowa, takes you on the inside on page 12.

* * *

"If you're going to sell commercial refrigeration, sell it—and forget the sidelines," warns a former sales manager, on page 13.

* * *

When you offer to let a customer pay for his new equipment out of the money he saves in operating costs, you've got a "savings story" that just can't be topped. Copy the method outlined on page 14, and you should be money ahead.

* * *

Down in Lima, Ohio, "Bob" Jacobs has built a steady commercial volume on prospects in small towns overlooked by most competitors. Page 18.

* * *

In a poker game, two pairs may not be so "hot" . . . but "two pairs" of commercial equipment has made a fine "hand" for a Detroit distributor. See page 19.

* * *

Locker Storage Systems

Prospective locker users pay in advance for the first year's rental, before the plant's even started, under an unusual system used by a Des Moines dealer. Page 16.

* * *

Locker plants a passing fancy? No, says Prof. Fred J. Beard of Iowa State College . . . and, on page 17, he tells why.

* * *

Selling 26 locker plants in a territory of only 22 towns sounds like an impossible task, doesn't it? But that's just what Ralph J. Larson did last year in Minnesota. See page 26 for a "how" story that's a honey.

* * *

How a Canadian locker operator developed a thriving business for his plant, one of the first in the Dominion, is told on page 32.

* * *

Installation Problems

Operating five commercial units of as many types off of one compressor was the knotty problem facing a Moline, Ill. dealer. How did he solve it? See page 27.

Noble Slated To Take Hopkins' Commerce Post

Real Business Man Will Take Charge of Dept.; Hopkins Very Ill

By George F. Taubeneck

WASHINGTON, D. C.—Put this down in your future book: Edward J. Noble, successful business man who founded and built to immense proportions the Life Savers candy mint business, is slated to be the next Secretary of Commerce. This may not be announced for some months, but it's in the cards.

Harry Hopkins, the present Secretary, is a very sick man. He is so ill that those close to him say he will probably have to resign within a few months. In the meantime Noble is taking over his duties. Last week the latter was made Assistant Secretary of Commerce (at a dollar a year), and Congress will be asked to create the position of Undersecretary of Commerce for him.

If Noble succeeds in enlisting the cooperation of business, he will get the job when (and if) Hopkins leaves.

But whether or not Hopkins recovers sufficiently to return, Noble will be the acting secretary from

(*Concluded on Page 2, Column 3*)

Philco Included In Jeffe's Campaign

NEW YORK CITY—Philco "Conservador" refrigerators have been included in Consolidated Edison Co.'s "Old Ice Box Roundup" sales campaign here, the Philco company having issued a notice to this effect to all cooperating dealers.

Addition of Philco brings to 14 the number of makes of electric refrigerators being sold in the drive.

Canker sore which has developed over the $1.50 pickup charge on old ice boxes continues to irritate participating dealers, who are seeking to have affidavits of destruction accepted in place of the actual ice box so as to eliminate the charge which they are required to pay at present.

E. F. Jeffe, Edison vice president, has said that the entire question is to be settled between the dealers and their distributors.

Locker Industry Changing, Experts Assert; Revision of Air-Cooling Standards Urged

Speakers at Texas U. Conference Attack Accepted Ideas

By Phil B. Redeker

AUSTIN, Tex. — Experience is rapidly demonstrating that some changes are needed in some of the accepted ideas about the estimating, design, and control of air-conditioning systems, according to the discussions held at the Third Texas Conference on Air Conditioning sponsored by the College of Engineering of the University of Texas.

The meeting was one that got strictly "down to cases." All the talks and discussions were presented by men who are active in the air-conditioning business in one form or another.

The attack on some of the accepted ideas of design standards was led by Dale S. Cooper, consulting engineer from Houston.

"Weather bureau records show that the generally accepted outdoor design condition of 95° F. dry bulb and 50% relative humidity occurs only about 10% of the time in this part of the country," Mr. Cooper declared.

(*Concluded on Page 4, Column 4*)

70,000 Ranges Is Goal For April and May

NEW YORK CITY — National quotas calling for sales of 70,000 electric ranges during April and May, of 19,500 electric water heaters in this same period, and of 90,000 electric roasters during April, May, and June have been established by the Modern Kitchen Bureau for its three major spring activities, the "Guess Again" range drive, the "Check Up" promotion on water heaters, and the "Golden Age" roaster campaign.

These national quotas were arrived at merely by adding together the individual quotas suggested by

(*Concluded on Page 2, Column 1*)

Kitson Manages Range Sales For Norge

DETROIT—Arthur Kitson, veteran of some 19 years of electric range merchandising and electric range specialist for the Norge organization for the past several years, has been placed in charge of all Norge range sales from coast to coast. As range specialist he had advised the company on product design and market requirements, as well as on sales.

Norge electric range sales for the first quarter of the year, it is reported, were 158% greater than for the first three months of 1938, and open orders (even though production has been geared up) are running approximately 2½ times those of a year ago.

Refrigerators In Alaska? Heck, They're Getting Common as Reindeer

JUNEAU, Alaska — What price progress! Electric refrigerators in Alaska are becoming so commonplace nowadays that this once-amusing paradox no longer constitutes acceptable material for even the most moth-eaten joke.

Latest indication of the spread of electrical appliances into what used to be regarded as one of the world's far corners is an advertisement inserted recently in the Daily Alaska Empire by Alaska Electric Light & Power Co., informing delegates to the District 101 Rotary International Convention to be held here May 18 to 20 that Juneau's new Baranof hotel had installed 32 General Electric refrigerators and 30 G-E ranges for the betterment of its culinary service.

West Coast Dealers Report Big February

SAN FRANCISCO — Sales of household electric refrigerators in the San Francisco area during February were more than two and one-half times as great as in the same month last year, according to dealers' reports to the dealer sales promotion division of Pacific Gas & Electric Co.

February sales this year totaled 847 units, as compared with 337 in the same month of 1938. For the first two months of this year, dealers have sold 1,858 units, against a total of 882 in that period last year.

Sales of electric ranges during

(*Concluded on Page 2, Column 2*)

Nema Spring Meeting Set For May 14

HOT SPRINGS, Va.—Spring meeting of National Electrical Manufacturers Association will be held here the week of May 14. Policies division will hold a session the morning of May 16, with federal legislation the topic of discussion.

Board of governors will meet May 17, and the codes and standards committee will convene May 19. All except the policies division meeting will be restricted to Nema members.

Locker Plants Wary of Freezing; Variable Shelves Suggested

By Phil B. Redeker

AUSTIN, Tex.—Only five years old as an "industry," refrigerated locker storage plants have gone through many stages of transition in that period, and the picture today is still in a state of rapidly changing methods and viewpoints, it was revealed by authorities on the subject of refrigerated lockers who spoke before the Food Preservation Conference held here last Thursday and Friday.

The meeting was sponsored jointly by the University of Texas and the American Society of Refrigerating Engineers. About 120 engineers, educators, public officials, and home economists were on hand for the sessions.

Here are some of the high lights of the changed methods and practices in locker storage work, as brought out by the speakers:

More products are being purchased at wholesale for storage, rather than being raised by the patron and then put into storage. This is particularly noticeable in Iowa, where at first nearly all the meats stored came right off the farms. With good prices for beef, however, the farmer tends to sell his livestock on the hoof and buy at wholesale from the packer.

(*Concluded on Page 4, Column 1*)

Leonard Sales Gain 3,376 In March

DETROIT—Continued increases in sales of Leonard electric refrigerators were reflected in March shipments from the factory, which were 386% greater than those of the same month in 1938, it was announced by Ray Legg, general sales manager.

March shipments totaled 4,681 units, he said, as compared with 1,305 for the same month a year ago, a unit gain of 3,376.

Mr. Legg reiterated his belief, expressed at the start of the year, that the electric refrigerator business would enjoy material gains in 1939.

"Our early estimates of the situation are being borne out by the larger orders we are receiving from the field," he said. "There is an excellent feeling, all around."

Western New York Council Has 57 Members, Almost as Many Varieties and Interests

By Henry Knowlton

BUFFALO — Promotion is the watchword of the Air Conditioning Council of Western New York, which is comprised of 57 business organizations interested in the progress of air conditioning. Membership includes concerns engaged in summer air conditioning, winter air conditioning, manufacturers, representatives of parts and supplies concerns, the local ice company, gas company, two local newspapers, and one advertising agency.

Sponsored by the Buffalo, Niagara & Eastern Power Co., business affairs of the organization are under the direction of Walter P. Davis, who serves the council as executive secretary. Long experience in the hiring and training of salesmen, in appliance merchandising, and promotional work gives Mr. Davis a valuable background for this work.

Meetings are held at the University Club once each month, when committee reports are heard, and a speaker discusses some subject of interest to the entire organization. While a great deal of the council's business is handled by committees, reports made at the monthly meetings often result in lively discussions of the problems at hand.

Current problems under discussion include the efforts of the heating, ventilating, and air-conditioning committee and the summer air-conditioning committee to adjust problems of trade practice, advertising, and relations with engineers.

First committee is attempting to get the proposed code governing air conditioning placed under the jurisdiction of the Buffalo Board of Health, rather than having its provisions and enforcement left to the building department. While firms active in Buffalo report that relations with the local building department are excellent, consensus is that the air-conditioning code is more concerned with health and public safety than anything else, and should be under the control of the Health Department.

The summer air-conditioning group is discussing the ethical use and advertising of "spot" cooling, and is cooperating with the local Better Business Bureau to obtain truthful advertising of air-cooling equipment

(*Concluded on Page 11, Column 1*)

Manahan Joins Peerless Field Sales Force

ST. LOUIS—J. E. Manahan has been appointed field representative for Peerless of America, Inc. in Missouri, Kansas, Kentucky, and southern Illinois, with headquarters here.

Before joining Peerless March 1, Mr. Manahan had been district commercial representative in the eastern states for Norge for three years.

Previously he was sales engineer on refrigeration and air conditioning for Frigidaire, remaining in that capacity for five years. Mr. Manahan is said to have engineered some of the largest air-conditioning installations in St. Louis.

'Talk Technical' To Prospects, Sure — But You'd Better Know Your Stuff, Says 40-Jobs-a-Year Man

ROCK ISLAND, Ill.—You can talk about mechanical features of a refrigeration system to a prospect for commercial refrigeration if you know enough about it yourself to sound convincing, thinks C. Leroy Hartman, commercial refrigeration dealer and service engineer who operates in the Tri-City area.

Apparently Mr. Hartman, at least, can practice what he preaches, because he sells about forty commercial jobs per year. Things have been looking so good this year that he has just put on two salesmen to help him follow up leads.

What sort of mechanical features does he talk about to a storekeeper, we inquired?

"I tell him about the pistons—how they are made solid like an automobile's, how they are fitted with piston rings, and how they have all the other features of modern design and construction," Mr. Hartman answered.

"I tell the prospect how the compressor operates at a slow speed to insure long life and satisfactory operation.

"I point out some of the features of construction—how the compressor body is made in one piece, how the valves are placed in the head so that this part can be easily serviced.

"You can also make a point out of the seal design, and how it can be easily replaced, if necessary."

Mr. Hartman's experience has convinced him that a talking knowledge of the mechancial side of a refrigeration system is a good thing. That's why he's having his salesmen study the Master Service Manuals on Refrigeration. If they get a good groundwork of knowledge in the subject, he feels they can learn about the mechanical features of the units they are selling in such a way as to talk convincingly.

Although a young man, Mr. Hartman has been in the refrigeration business for some time. He was a serviceman for a distributor, but when the firm put him on a commission basis, giving him 50% of the labor charge on all C.O.D. business, 45% of the labor on charge accounts, and 10% of the price received for

(*Concluded on Page 10, Column 1*)

Utilities, Newspapers To Increase Participation In Kitchen Bureau Drives

(Concluded from Page 1, Column 3)

the bureau for utility companies participating in the three programs.

And utility participation this year is heavier than ever before. Some 125 power companies, representing thousands of dealers, already have climbed aboard the Guess Again bandwagon and will cooperate with their dealers in utilizing the Modern Kitchen Bureau's various promotional media, reports H. L. Martin, bureau manager. Last year only 95 utilities participated.

Even greater, however, is the increase in the number of newspapers which will run the bureau's special four-page electric range section as a supplement to their regular issues. This year, 226 papers have contracted to run the range supplement, an increase of more than 150% over the 89 papers which used it last year. Utilities and dealers, of course, will support these with advertising.

Electric water heating activity also is bounding upward, the number of participating dealers and utilities this year nearly doubling that of 1938. Fifty-two power companies will string along with the bureau's water heater program this spring, whereas only 29 did so last year.

The electric roaster drive, now in its first season of a scheduled three-year promotion, is off to a nice start too, with more than 100 utilities already putting their shoulders to the wheel behind this revenue builder.

Pacific Coast Sales Gain In February

(Concluded from Page 1, Column 4)

February also showed a notable increase over figures for last year, 11 sales being reported as compared with none in that month of 1938. Range sales for the year's first two months totaled 12 units, against six last year.

Washer and ironer sales also were up over comparable 1938 figures, total for the first appliance being 529 units, against 445 last February, and for the latter, 117 units, against 66 last year.

Radio sales for the first two months amounted to 8,517 units, as compared with 7,319 in the same period of last year.

Winters To Join St. Louis Philco Distributorship

ST. LOUIS—Ralph J. Winters has resigned as buyer of major appliances for Stix, Baer, & Fuller Co. to become sales promotion manager of Artophone Corp., distributor of Philco radios and refrigerators, and ABC washers. This change will take effect May 1.

Mr. Winters, who has held his position at Stix, Baer, & Fuller since 1933, was at one time city sales manager for Koerber-Brenner Co., distributor for Victrolas.

Regarded as an expert in sales training, Mr. Winters is now conducting a series of 28 lectures on merchandising and retailing at Jefferson College.

Noble's Experience as Employer Seen as Aid In Intelligent Handling of Business Problems

(Concluded from Page 1, Column 2)

now until Hopkins and his doctors have definitely decided on his proper course.

To those who have wondered what has happened to the "business appeasement" program that Hopkins announced in his Des Moines address, the answer is that the Secretary hasn't been able to spend a day in his office since that time. Work in all the related bureaus of the department has been at a standstill because nobody knew whether or not Hopkins would be able to continue, or who his successor would be.

After Hopkins conferred with Roosevelt at Warm Springs a fortnight ago, so inside information runs, it was decided that Noble was the man for the job, and he was drafted from the Civil Aeronautics Commission.

That business men can derive considerable encouragement from this turn of events is obvious to those who have interviewed Noble. He is an employer who has had to meet payrolls, and who is thoroughly imbued with the business point of view. Beginning with a kitchen stove and some pots and pans, Noble developed a nation-wide confection business from scratch.

Last June he took over the newly created Civil Aeronautics Authority, which was set up to straighten out the mess in the Air Commerce Bureau. In eight months he put this bureau on a business-like basis, and worked so effectively on a safety program that only three airplane accidents occurred on commercial lines during that time—a remarkable comparative record.

In addition, the task of training 20,000 pilots and 100,000 aviation mechanics was thrust in his lap at the beginning of the year—programs which he organized so well that their success is said to be assured.

Business Hope

Edward J. Noble, practical business man, who will head up Department of Commerce.

John Hanes, the Assistant Secretary of the Treasury who has been working so hard for tax revision which would help business and release investment capital, told the writer that "Noble is one of the most competent and best-informed men in government service."

The Business Advisory and Planning Council, a more-or-less anonymous body of business men who are supposed to have been advising the Secretary of Commerce, will attain real recognition in the near future, according to Mr. Noble.

It is his plan to convoke this body at more frequent dates, and make genuine use of their suggestions. To date, this group has met more or less spasmodically, and apparently hasn't been in the picture to any great extent.

Who is the Business Advisory and Planning Council? The following outline may help answer this question:

In March, 1933, when he assumed the office of Secretary of Commerce, Daniel C. Roper decided that he should have the benefit of the advice and counsel of a group of public-spirited men who were successful in the conduct of business affairs.

Accordingly, in consultation with some of his business acquaintances, Mr. Roper selected about fifty men who agreed to serve without compensation of any kind as members of the Business Advisory and Planning Council for the Department of Commerce.

The first chairman was Gerard Swope, president of the General Electric Co. After Mr. Swope came S. Clay Williams, chairman of the board of R. J. Reynolds Tobacco Co. and subsequently chairman of the National Industrial Recovery Board.

He was followed by H. P. Kendall, a well-known textile manufacturer with plants in New England and the South. The next chairman was George H. Mead, president of the Mead Corp., one of the leading paper companies in the country. The present chairman, who has served since Mr. Mead's term of office, is W. A. Harriman, chairman of the board of the Union Pacific Railroad.

A very broad coverage of business activity is represented, from the extraction of minerals and other raw materials, through a great diversity of manufacturing operations, through transportation in all its forms, down to retail operations and direct dealing with the consumer. In addition, the council membership has a certain geographic diversity, in that all major sections of the country are represented by one or more men.

The government provides office space and expense, clerical, and some technical help. Council members pay all their own expenses, give freely of their time and frequently the time and expenses of the staffs of their companies.

For the sake of more expeditious handling, the council sets up sub-committees to deal with specific matters referred to it. These sub-committees generally consist of three to five council members and frequently several non-members who are experts in the field to be studied. Committee reports are referred first to the council's executive committee, then to a council meeting and when approved by the council are transmitted to the Secretary of Commerce.

After that, the report belongs to the Secretary of Commerce and in his sole discretion he may refer it to other government departments, make it public, or file it for future reference.

The work of the council on a particular subject does not end with the formal presentation of a report to the Secretary of Commerce.

After that come conferences and discussions between government officials and those council members most familiar with the subject matter of the report.

British Embassy Pooh-Poohs Idea That 'War' Article Would Affect Sales

WASHINGTON, D. C.—Sir Owen Chalkley, commercial charge d'affaires of the British Embassy, was approached Thursday regarding Arnold Dessau's attack on the NEWS for the publication of the article, "What They Say About War Down in Washington." The following conversation ensued:

Question: "If an American trade paper circulating in England were to attack the idea of a military alliance between America and Britain, would English readers be inclined not to patronize advertisers in that paper?"

Sir Owen: "Absolutely not. British business men are sophisticated. Political talk, to them, is just political talk. They are used to it. They'll buy goods from their worst political enemies if they think there's profit in it."

Question: "If Henry Ford were publicly to denounce England as a debt welcher and warmonger, would it affect the sales of Ford cars in England?"

Sir Owen: "Again, absolutely not. Sentiment is hardly a factor in British purchasing."

Question: "If war comes to England, will she be forced to keep great stores of perishable foodstuffs by refrigeration?"

Sir Owen: "The current solution of this problem is the use of canned goods. They are veering away from refrigeration at present."

"Then I Switched to A-P Valves . . . and Trouble STOPPED!"

(A typical remark from a Service Engineer)

"Here's one reason I prefer A-P Valves on all my 'Year's Warranty' installations.

"Superheat Adjustment on other valves is difficult and complicated. But not on the A-P. Just remove the bottom nut and your adjusting stem is right out in front of you."

The "Switch" to A-P Valves is spreading to all phases of Air Conditioning and Refrigeration—Commercial Cabinets, Store Air Conditioning installations of every size and type,—Huge Hotel and Industrial Refrigeration and Air-Conditioning.

The Service Engineer working on every job can give you many reasons for A-P Preference—in definite terms of Service-Free and Trouble-Free operation.

A-P Refrigeration Valves are far ahead of their time in design and construction—in super-sensitivity, accuracy of control that invariably mean a Profitable Installation.

INSTALLATION
Elm Grove Store
Elm Grove, Wis.
CABINET
Campbell Refrigerator Co., Milwaukee, Wis.
REFRIGERATION UNIT
York

VALVES — A-P

Purchased through Refrigeration Specialty Co., Milwaukee Wis.

AUTOMATIC PRODUCTS COMPANY
2450 NORTH THIRTY — SECOND STREET
MILWAUKEE WISCONSIN

A-P Refrigeration Valves . .

DEPENDABLE
THE BYWORD FOR A-P CONTROLS

MASTERCRAFT
ADJUSTABLE PAD AND CARRYING HARNESS

The most efficient and economical equipment made for handling refrigerators safely and without scratching or marring. Pad is separate from harness and both adjustable to all styles and sizes of cabinets. Efficient, sturdy, easily and quickly applied.

Adjustable Pad, $3.30 each
Adjustable Harness, $6.00 each
Name of refrigerator attractively lettered on pad at 50¢ extra.
f.o.b. Chicago.
Write for folder and prices on pads for refrigerators, washers, ironers, ranges, radios, etc.
Pat. Appl'd for

BEARSE MANUFACTURING CO.
3815-3826 Cortland Street, Chicago, Illinois
Incorporated 1921

YES SIR! THIS NEW SUPERIOR DIAPHRAGM PACKLESS VALVE, CAN BE OPERATED, EVEN WITHOUT DIAPHRAGM

"The patented expansible pressure cups hold the refrigerant in the system—even though the diaphragm should fail. A real life-saver on counter freezer and heavy usage jobs.

"No losses—no shut-downs—no emergency service calls! Install a SUPERIOR valve on your next counter freezer job, we think you'll like 'em."

Sold by leading jobbers everywhere

Write for Bulletin R2

SUPERIOR VALVE & FITTINGS COMPANY
500 THIRTY-SEVENTH STREET • PITTSBURGH, PENNA.
Export Department: 100 Varick Street, New York, N. Y.

You'll want one of our New Catalogs

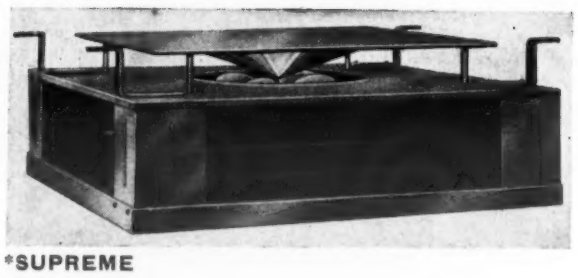
THE New Bush Catalog contains 40 pages of Data, Tables, and illustrations of definite value to all Refrigeration Men. This smartly designed and printed catalog (8½"x11") is arranged in sections—each different type of Bush Product illustrated, has a complete table of Data accurately compiled giving **Actual Exposed Surface,** Dimensions, List Prices, etc.

The Major Product Divisions in the New Catalog are Coils for Walk-in Coolers, Reach-in Coolers, Display Cases; Circulator Coils; *Unit Coolers and Ice Maker Coils including shallow type for Back Bars.

Every Engineer working on Refrigeration and Air-Conditioning Problems will want a copy of this New Bush Catalog—Use the Corner Coupon!

For 33 years Bush have been building Quality Finned Tube Products—33 years of applied experience plus advanced Refrigeration Engineering Knowledge.

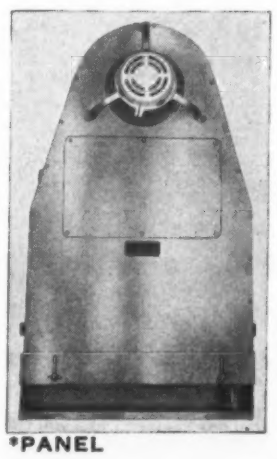
The Refrigeration Industry looks to Bush Quality as the standard of value when buying Finned Tube Products. Specify Bush!



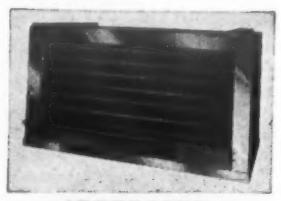
*SUPREME

Featuring Many New Products

A few from the Unit Cooler Section of the New Catalog. You'll find many New Products throughout the book—Don't miss a Page!



*PANEL



*DEFROSTO

Estimators need not refigure "Square Feet of Surface" given in a Bush Catalog—it is figured as you would figure it—actual effective Exposed Surface, eliminating for holes cut out and the tube surface covered by the fins. The answer is a true and accurate "Square Feet of Exposed Surface"—300 Square Feet of Bush Surface is 300 Square Feet of Exposed Surface.

In Bush Quality Finned Tube Products there is no obstruction in the tube to cause excessive pressure drop.

BUSH *Figures Actual Exposed Surface!*

HOLES DEDUCTED

JOBBERS: A few desirable territories open to Jobbers interested in building volume sales at a profit. Interested?

BUSH MFG. CO., Main Offices and Factory: Hartford, Conn., U. S. A.
Branch Factory: 610 N. Oakley Blvd., Chicago, Ill.
Export Dept.: 100 Varick St., New York, N.Y. Cables: Arlab, N.Y.

DROP this coupon in an envelope—

BUSH MFG. CO. HARTFORD, CONN., U.S.A.

Yes — Please send me a copy of your NEW CATALOG

name _____

address _____

_____

title _____ 419

SINCE 1907 Bush Mfg. Co. *Finned Tube Products*

Experts At Texas Conference Give New Slants on Lockers & Frozen Foods

(Concluded from Page 1, Column 5)

This has also softened meat packer opposition to the locker movement.

The experts advise locker operators to shun attempts to freeze home-grown fruits and vegetables for storage in their plants, unless they have the best type of equipment available, and someone who knows how to use it.

Even then it's a tough proposition, for the big packers of frozen foods themselves are finding all kinds of problems such as selection of species and varieties, freezing methods, etc., considerable of a problem. A survey indicates that about 17% of locker operators are wholesaling standard brands of quick-frozen foods to their customers, and that this idea, which is given an okay, is growing.

SPACING OF SHELVES

Latest recommendation in locker plant construction is that the shelving in freezer rooms be varied as to the amount of space between them, instead of uniform, as heretofore practiced. Because of the flat nature of many of the cuts, such an arrangement provides for more space.

Expert opinion was divided on the proposal of putting wooden racks on the freezer shelves on which the meat was to be held. Idea behind this proposal is to eliminate freezer burn, but opponents of the idea claim that the rack would cut the speed and thoroughness of the freezing process.

One speaker strongly recommended that chilling and ripening, now usually done in the same room, be carried out in separate rooms. Reason—the steam and moisture from the hot meat collecting on chilled meat that is dry and already starting to ripen, may increase the undesirable mold development.

COST OF LOCKER PLANTS

A recent survey of 28 locker storage plants shows that average cost of putting a locker plant in an existing building is $18 per locker; where the building must be constructed, $33 per locker.

Operators will be smart to keep an extra key to each patron's locker on hand at all times (in case the patron forgets his), and to date all products put into storage (to eliminate the possibility of liability or "griping" in case the meat remains in the locker too long).

PROPER MEAT CUTTING

Success of a locker storage plant will be in proportion to the services rendered. Thus the proper cutting of meat is all-important.

Cutting of meat for locker plants requires an altogether different technique than that of the retail meat store for the reasons that (1) the meat dealer must try to sell as much bone and waste as possible, which is pointless in the case of the locker operator; (2) the packages should be small and flat, to make possible a maximum of storage; (3) the pieces should be small enough in most cases to make a single meal, and to require no further cutting before cooking.

(Further details on this matter of cutting and keeping meats properly will be found in the report of the talk given by Prof. Roy Snyder of Texas A. & M. College. Those who wish to know more about the technique of cutting meats to give the customer the best out of them should get the booklets "Cashing In on Beef," and "Cashing In on Lamb," published by the National Livestock and Meat Board, 407 N. Dearborn St., Chicago, Ill., Prof. Snyder advocated.)

COOKING FROZEN MEATS

In the cooking of frozen meats, the home economists present declared that the meats can either be thawed out for a couple of hours, or cooked in the frozen state. Good practice seems to be to thaw out large, thick pieces, but not to thaw out smaller pieces such as steaks, chops, etc.

To get the best possible results out of cooking any kind of meats (although it might apply particularly to frozen meats) the housewife should have a "meat thermometer," which apparently has a sharp point which allows it to be stuck into the meat.

"The degree of temperature at the center of the piece of meat is the true test of whether or not the meat is done," declared Prof. Snyder. "The new automatic controls on electric ranges help a lot, but it is still up to the housewife to guess the weight of the meat she is to cook. With the thermometer she can be absolutely sure when the meat is done, and get away from the curse of American food preparation—overcooking."

SAVINGS TO LOCKER USERS

The estimated dollars-and-cents savings to the locker user varies from $30 to more than $100 a year. It is probable that $50 is a fair average estimate, declared P. T. Montfort of Texas A. & M. College.

On the question of how long frozen foods will stay good in the ordinary household electric refrigerator, no definite information seemed to be forthcoming. Several persons present stated that they thought 72 hours was the maximum time it might be good, but one distributor of quick-frozen foods said that he often kept them for a week or more with no ill effects.

In the talk given by Prof. J. Q. Sealey of Texas Tech College on "Bacteria and Other Biological Factors in Relation to Frozen Foods," it was pointed out that quick-freezing temperatures stop the action of pathogenic bacteria, but do not have a great effect on the sterile bacteria, and therefore as much care must be used in handling frozen foods as in handling fresh foods.

FROZEN FOOD FACTS

Some of the facts to keep in mind about frozen foods, according to Mr. Sealey:

Frozen foods are not sterile. Bacteria decrease in number, but many survive, especially spore formers and micrococci. These are sufficient to cause spoilage in a very few hours at room temperatures. Hence, frozen foods should be stored at temperatures around 0° F.

Frozen foods are not necessarily preserved until the container is opened; especially if the temperature is allowed to rise subsequently to the freezing treatment.

Oxidation may occur, especially in frozen foods containing fats and oils; and aromatic substances which impart flavors and odors to foods may disappear, unless they are packed in air-tight packages.

Quick freezing helps conserve the vitamin content of foods, thus helping to maintain their quality.

Freezing cannot be expected to improve the quality of foods, with the possible exception of meats.

Bacterial toxins if allowed to develop in or enter the foods at any stage of their handling, will not be destroyed by freezing.

REFRIGERATION ON FARMS

How mechanical refrigeration may be a most potent force in raising the standard of farm living in the south, and, perhaps what is more important, in a soil conservation and crop diversification program, so badly needed, was told by John P. Ferris of the Tennessee Valley Authority.

"Farmers in the southeast have been suffering about a 25% loss in their hog killing operations because they have to guess at the weather," he explained. "The availability of locker storage plants would solve this problem.

"In one actual case in Georgia where a refrigerator room (not locker storage) was put into use in a farm community, a saving of $300 per year on an $800 investment was realized.

BETTERS LIVING AND LAND

"When a cotton farmer starts to raise beef or lamb, he betters his living (over his usual salt pork diet), and also helps his land.

"We can talk all we can and print bulletins until we're blue in the face, but only farmers can save the land," declared Mr. Ferris. "The farmer must plant cover crops—pasture acreage—to save the land from being destroyed by erosion.

"A couple of head of livestock on each farm will mean that the farmer will have to plant a couple of acres of cover crop each year, and this might be enough to save his land. This has been getting underway slowly; in Georgia in the past five years 1½ million acres have been changed to acreage for human and animal feeds.

MEAT PRESERVATION

"Refrigeration is the real 'gateway' to this program, because if the farmer can find a way to preserve the meat he is raising for the whole family, it will go a long way towards making him see the light."

One of the big problems in the refrigeration movement has been that of getting refrigeration facilities into poor and thinly populated areas which don't offer much possibility for a locker storage plant. A couple of small locker plants have been tried, varying in size from six to 20 lockers, but these haven't proved very successful.

Eleven "community" refrigerated walk-in cooler boxes have been installed in the Tennessee Valley area in crossroads stores, and these have been more successful.

'COMMUNITY' LOCKER BOXES

Cost of operation is low, and the storekeeper taking care of the boxes has been satisfied because more customers are attracted to the store and he is enabled to sell a few added items. In some instances the Smith-Hughes teachers have also managed these coolers with success.

These coolers maintain a temperature of around 36° F., enough to hold meats for a couple of weeks. However, no freezing facilities are available in such boxes, so meats cannot be frozen and held for extended periods of time.

Range Chief

Arthur Kitson, range specialist, who has been placed in charge of all Norge range sales.

Boston Conditioning Bureau Considers Fire Prevention

BOSTON—Members of the Air Conditioning Bureau of Boston held a special "Fire Prevention Conference" at the Statler hotel here early this month.

William Arthur Reilly, fire commissioner, acted as chairman of the meeting, at which E. W. Fowler, engineer for the National Board of Fire Underwriters, spoke on "How to Prevent Fire Hazards in Air-Conditioning Systems."

Represents Peerless

J. E. Manahan, new Peerless field representative covering four Midwest states, with headquarters in St. Louis.

Flexibility of Control Is Great Need of Conditioning, Texas Conference Told

(Concluded from Page 1, Column 3)

"Most of the time the conditions encountered consist of a somewhat lower dry-bulb temperature and a much higher relative humidity.

"From the records available, particularly in terms of the duration of certain types of outdoor conditions, it seems that an outside design condition of 84° F. and 100% relative humidity would be more to the point for our purposes."

The problem of an improper design condition may become particularly acute in the case of cafes, dancing palaces, and gambling joints, where the dry-bulb temperature may be relatively low, particularly in terms of the daytime design condition, but where the occupancy factor may produce a much greater load than would be estimated under the usual standards.

FUNCTION OF CONTROLS

"Flexibility of control is the one great need of an air-conditioning system," said Mr. Cooper. "The control setup must be able to 'get hold' of any condition and alter it to the desired condition.

"A chart of performance readings indicates clearly that control of the dry-bulb temperature alone will not give comfort conditions," declared the Houston engineer.

"In some residential installations that have dry bulb control only, the man of the house doesn't get any benefit whatsoever from the air-conditioning system, since the control is set for a dry-bulb reading that is generally obtained only in the daytime.

"Thus the effective temperature condition which he meets at night is just as uncomfortable as the daytime condition, but the system won't do anything about it."

GOOD CONTROL HOOKUP

Mr. Cooper took for example a case of a good control hookup in a Houston medical clinic and hospital. Requirements of a hospital system are that it (1) operate 24 hours a day; (2) be completely automatic; (3) provide for a change to a lower effective temperature at night, so patients may sleep easily.

The type of control system used on this job is known as an automatically reversing compensating effective temperature control.

Main features of this control system are (1) the system automatically reverses itself from cooling to heating, as needs be; (2) the temperature is compensated with outside conditions; (3) the system balances itself, for if the temperature is high the system produces a low relative humidity, and vice versa, to provide the desired effective temperature.

Elements of the system include a modulating type control with a bulb in the fresh air duct; a thermostat and humidistat operating from the inside conditions, working a relay to bring the compressor into operation quickly; and a thermostat set to start the heating equipment whenever the dry-bulb temperature falls below 72° F.

Such a system will give much more satisfactory operating conditions than one in which a reheat method is used, Mr. Cooper claimed. The hospital is maintained at 73° E.T. in the daytime, and 71° E.T. at night.

DIRECT-READING INSTRUMENTS

A suggestion as to a method of insuring user satisfaction in air conditioning was made by O. G. Floyd of Gulf States Utilities Co., Beaumont, Tex., who advocated use of a direct-reading instrument on comfort conditions, similar to the constant voltage meters used by power companies to prove that their customer is getting a constant voltage.

A. J. Rummel of the San Antonio Power & Light Co. presented some reports of studies made of employes of his company relative to their reactions to an air-conditioned atmosphere, which uncover some of the best data yet available on the subject of "What Is a Comfortable Condition?"

Working on the basis of a very fine definition—"an occupant is comfortable when he is oblivious to discomfort"—Mr. Rummel came to conclude about the following:

In summer most people are unaware of any discomfort at 72-73° Effective Temperature. At a few degrees above and below this, most of them are aware of some degree of discomfort.

In the winter the satisfactory Effective Temperature condition is about 4° below this.

Air motion and heat loss or gain through radiation are now thought much more important than formerly. Heat loss from the body is affected by air and wall temperatures, and greatly affected by air motion. Relative humidities are not considered so important.

VELOCITY LIMIT

A velocity limit of 20 f.p.m. on conditioned air is essential, and it is desirable that the air movement remain constant. To provide a constant flow of air a split system is best. This provides some quantity of air regardless of temperature demands, by means of thermostatically operated dampers, one for outside or by-passed air, the other for the conditioned air.

Tests show that former thinking exaggerated the amount of fresh air needed. As a general rule the natural infiltration is good enough for all except cases of crowded occupancy.

Estimates of the amount of fresh air needed depend on type of cooling surface used, ranging from 12 cu. ft. for direct surface coolers to 4 cu. ft. for spray-type units. However, the odor intensity rises very quickly in spray-type coolers if the water is not changed.

RESULTS OF STUDY

The study made on employes showed that while 90% of the people registered no discomfort on entering a room at 76° E.T., only 25% of them were comfortable after being in there an hour, while 90% of the people entering a room at 73° E.T. were still comfortable after being there an hour.

Cold shock is caused upon entering a building because the person has probably been active before entering and is wet from perspiration, Mr. Rummel said.

The person outdoors in 95° F. dry-bulb temperature dissipates almost 85% of his total body heat as latent heat, and only 15% as sensible heat.

In going from outdoors into a conditioned space which is maintained at 78° (dry bulb) the sensible heat loss increases from 15 to 70%, but since the body is wet, the latent loss is not reduced immediately, with the result that the total heat loss from the body is increased about 50% from the normal loss, which naturally gives a cold shock.

On leaving a conditioned building a hot feeling is experienced due to lag in the perspiration starting, thereby not allowing the body to lose its heat until equilibrium is reached.

The duration of the cold shock upon entering a conditioned building has been found to be approximately 10 or 15 minutes for effective temperatures of 71.5° or higher, whereas the length of the cold shock is greatly extended when the temperature is lower.

TRANSITION SPACE

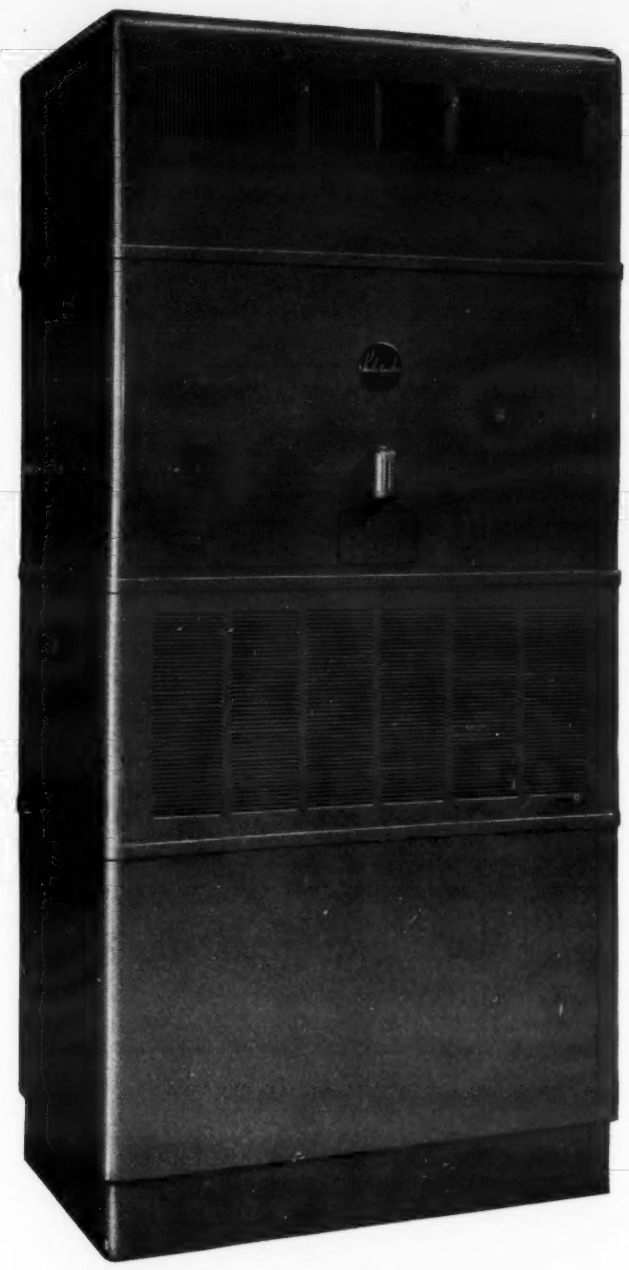
In a discussion of Mr. Rummel's paper led by Prof. W. A. Giesecke of Texas A. & M. College it was suggested that if possible a transition space be provided in stores, etc. which are air conditioned for transients, so as to break them into air-conditioned spaces by degrees.

It was also suggested that air-conditioned places for transients be kept at higher temperatures, one classic example being a drug chain which maintains temperatures of 76-78° in its stores, so that patrons will be comfortable for a while only, and won't linger too long.

Two other highly informative papers given at the meeting were "Installation and Servicing of Air-Conditioning Equipment of Less Than 50 Tons," by A. F. Avera of Air-Con Engineering Corp., Waco, Tex., and "Storage Refrigeration Systems as Applied to Air Conditioning," by D. C. Pfeiffer, Dallas Power & Light Co. These will be reported in a later issue of AIR CONDITIONING & REFRIGERATION NEWS.

Why is Kelvinator "Packaged" Air Conditioning

EASY TO SELL?



—because the men who sell it helped draw up the specifications!

MAYBE you've often felt that you could do a better selling job if you had something to say about the design of your product. If so, you'll be interested in the "Sales-Success" of Kelvinator store air conditioners.

Before we build our units, we talk to the men who *sell* them!

Take that compact 3-ton unit pictured above. We know that a lot of store owners insist on a unit that can be finished to match any interior scheme . . . one that is quick and easy to install . . . that doesn't exceed a certain height and size.

We *know* this because we checked with the men who *sell!*

You can call that "working with the field force" . . . we call it good business sense. And we carry it beyond product design right into sales methods themselves.

Like any other business organization, we thrive on sales. But we don't believe in strong-arm methods. A little over a year ago, our distributors helped us work out a Production Line Selling Plan. What it does is *simplify* and *speed up* your selling operation. We've proved it is a sound way to make sales—with less effort.

Right now—today—scores of Kelvinator distributors are cashing in on store air conditioning. If you think you're missing the boat . . . if you're tired of trying to push a product that your trade simply doesn't like . . . if you'd like to get in with an organization that values your help and advice . . . then you ought to look up Kelvinator.

Our line is complete. It's completely "Sales-designed"—and it's backed by 25 years of experience in temperature control. If you'd like to get in on the inside with Kelvinator, just clip the coupon below.

HERE'S WHAT THEY WANTED!

ECONOMY AND HIGH EFFICIENCY . . . and this Kelvinator 3-ton unit has more capacity per cubic foot than any other system. It has more capacity per dollar of first cost. It has more capacity per dollar of operating cost. There's economy for you!

EYE APPEAL . . . the Kelvinator Conditioner is designed on clean, modern lines, and finished in neutral gray appropriate to most interiors. Where desired, its smooth exterior can easily and quickly be finished to match any special color scheme.

A COMPACT PACKAGE . . . the unit at the left is only 42¼ inches wide, 25¼ inches deep, and 90⅞ inches high. Fits in easily!

EASY INSTALLATION . . . the air distribution hood at the top is removable, so the unit can be moved easily through doors. Installation is a matter of a few hours.

RELIABILITY . . . Kelvinator's 25 years of experience in temperature control give you assurance of trouble-free performance—satisfied customers!

CONTROLLED AIR FLOW . . . this Kelvinator unit has two-way directional grilles, adjustable to prevent drafts.

SPACE FOR HEATING UNIT . . . this Kelvinator unit is built to accommodate a Heating Coil and Humidifier, to convert it to a winter air conditioner.

QUIET . . . it has 1-inch-thick insulation surrounding the entire frame. The motor is mounted in rubber, and so is the entire condensing unit and fan assembly.

YES—KELVINATOR HAS GIVEN THE MEN WHO SELL IT WHAT THEY ASKED FOR!

Kelvinator self-contained water-cooled conditioner in 1½-ton capacity. A compact, attractively styled unit for use in small stores, offices or homes.

Kelvinator self-contained Air-Cooled Room Cooler. ½ and 1-ton capacities. Separate controls for circulating and filtering air when cooling is not required.

Floor-type Room Cooler—for installation with remote condensing unit. Various sizes and capacities available. Heating coil and Humidifier may be added at any time as optional equipment.

KELVINATOR 1914 1939 SILVER ANNIVERSARY

Kelvinator

Simplified Air Conditioning

Kelvinator Air Conditioning embraces: Self Contained Models, including Room Coolers and Store Air Conditioners for "Package" installation—Floor Type Units for installation where duct layouts inadvisable—Suspended Units for installation with or without ducts—Central Systems for larger installations. Also, complete line of Residential Air Conditioning equipment.

KELVINATOR Division of Nash-Kelvinator Corp., Dept. K-52, 14250 Plymouth Road, Detroit, Michigan.

Gentlemen: I'd like to know more about Kelvinator's Air Conditioning Story.

Firm Name_____

Address_____

City_____ State_____

Field Reports

Rural Business Will Benefit Des Moines Dealers If They Can Offer Low Price; Dept. Stores Have Edge on Sales

By Phil B. Redeker and Robert Price

Des Moines is in the center of a huge farming area. General business conditions are not subject to the ups and downs that indent the sales curves of the large industrial centers. Electric refrigeration came later to these rural areas, and consequently the degree of saturation is comparatively lower than in strictly metropolitan areas.

With the advent of REA lines and utility power outlets, the electrical appliance business received an added advantage, and sales are expected to have a marked increase during this year. Farmers in this region are said to be in a good economic position, and their buying power will be a large factor in sales increases in this region.

PRICE-CONSCIOUS PROSPECTS

Rural prospects are extremely price-conscious, and the low-priced boxes in all lines this year are counted as a real attraction to this class buyer. As the saturation point in the city has moved upward, a great many of the buyers here will be in the lower-income groups, and sales effort will be aimed at both rural and urban buyers in these groups during the spring and early summer, it is said, for in this period "price buyers" are the biggest single factor.

Department store refrigerator and range sales are said to amount to over 50% of the total here. These large stores have advertising and promotional setups which reach into all parts of the state, and, due to their many accounts in other lines, have recorded a great number of appliance sales on long-time prestige and extra services offered. One significant factor in out-of-town refrigerator sales is the offer of free delivery to nearly all parts of the state.

SMALL DEALER PRESSED

And where is the small dealer in this setup? He is rather hard put here to keep his head above water, for he is finding it extremely difficult to compete with the department stores and the local utility. He cannot attempt to advertise on the scale of the larger operators, he cannot offer long-term contracts without dangerously reducing his operating margin, and so he must attract his prospects by means of his own ingenuity—or by "bargain sales" that have spelled ruin for not a few dealers.

Housecleaning Weather Means Sales

"Is it good weather for spring housecleaning today?" asked A. A. Schneiderhahn, head of the company which bears his name, and which is recognized as one of the leading wholesalers of Leonard refrigerators in the country.

We replied that the weather was in the nature of a good spring day, with still a touch of coolness in the air.

"That sounds like spring housecleaning weather, and that means that a good retail movement in electric refrigerators should be started," declared Mr. Schneiderhahn.

For it is the psychology that goes with spring housecleaning that brings the peak of refrigerator sales in April and May, believes Mr. Schneiderhahn. It must be admitted that it is as reasonable an explanation as has ever been advanced.

"It's the time when the housewife is straightening out her home, when she naturally thinks about any new purchases for the home, and the provision that she must make for them. That's why dealers find they have to keep open nights during this period—because the housewife has been too busy 'cleaning up' during the day.

HOW HE FIGURES

"Hot weather in itself isn't a stimulus to sales. If that were so we'd do a bigger business in July and August. So a warm spell right now doesn't mean so much to household refrigeration, only as it encourages the spring cleaning movement.

"A similar situation exists with oil-burning space heaters. Normally you might think that space heaters will sell in the coldest weather, but experience has demonstrated that the season is over by November. This is because of the fact that space heaters are bought when the householder is **getting ready** for the winter. Once he gets the old stove or heating apparatus going, he isn't likely to want to change."

A bright spot in his territory is the great extension of power lines into farm areas, chiefly by the Rural Electrification Administration. But the farm market is a tough one on appliances even under normal conditions, says Mr. Schneiderhahn, because the mail-order house competition is particularly tough in the farm field, and because the farmer is a smart "poker player." He's getting a nice subsidy from the government, and he wants to keep getting it, so he continues to "look poor." And buying major appliances is to his mind "actin' rich."

More than that, however, are the efforts of some manufacturers to try to grab up all this farm business by circumventing the usual dealer channels.

"They're selling to the farmers through anyone — most generally through small electrical contractors to whom the $10 bill they may get off such a job seems like big money.

"Such deals bring volume at cut prices, but in so doing the manufacturers are knocking the independent retail appliance dealer out of business. To my mind this is all wrong, because the independent dealer is the heart of the business.

"Manufacturers have shaved list prices and at the same time narrowed the dealer's margin of profit. How is this going to help the dealer in a replacement market, where he really needs a greater margin to work with to take care of trade-ins?

"Manufacturers' treatment of dealers is like the farmer who feeds his chickens sawdust—it may work for a while but eventually the chickens are going to lay knotholes."

Volume Doesn't Mean Profit, Thomas Says

V. L. Thomas, owner of Thomas Electric Co., General Electric dealer, voiced the opinion of the smaller dealer in this city. Dealers and distributors, he said, have come to be in the "have to" position. They constantly hear the cry of "volume, more volume" and to keep sales running high many of them lose sight of sound business principles and fall a martyred victim to high-pressure methods.

Mr. Thomas has discontinued the forcing of refrigerator sales for small return. That, he believes, is the quickest way "to go broke." In addition to the local situation involving the heavy competition of department stores and utility, he blames "entangling alliances" of manufacturers with electrical contractors for cutting down small dealer sales.

Explaining these alliances, Mr. Thomas cited the practice of an electrical contractor's being able to "get appliances for a friend" due to the fact that he is buying materials and supplies from appliance manufacturers supplying these materials. Many sales, he claims, are taken from the dealer as the electrical contractor can obtain appliances on his electrical supplies account.

Mr. Thomas believes that the manufacturer is reducing the number of strong dealers by this "alliance" practice, and he adds that it is another evil that has grown out of volume trading.

EXPECT LOW PRICES

Even if dealers were allowed as high as 50% discount the constant press of competition and cut-rate dealing would quickly eat up this margin, this dealer says. The average refrigerator buyer has been led to expect low prices, and so shops around until a dealer offers to undersell competitors in order to record a sale. Not this dealer. Mr. Thomas has decided to "sit back" and sell refrigerators at a fair profit, or "get out of this line of business."

Distributors, too, he claims, have felt the press of volume losses. He cited the case of a local distributing channel which folded up "when discounts caught up with them."

This distributor, he continued, was operating on a margin of about 40% discount. It was the practice to offer a dealer 30%, add another 3% for advertising, and another 2½% for freight or delivery charge, plus operating expenses of one sort or another. Sight drafts on deliveries were immediately discounted at the bank, although the shipment was not picked up for some time by dealers. Additional costs of "dealer schools" and frequent conventions ate further into the narrowed margin. Result: The distributor went out like a light.

After a string of distributors went through much the same process, and the line was promoted in the section, the next one in line moved in and took up the sales task. But, said this dealer, it is like a person moving onto cleared ground after pioneers have "taken a beating mopping up and doing the advance work. He has a fair chance of making a go of it, if he doesn't let pressure selling cut his business structure from under him."

Dealer Has Hard Fight

G. C. McAfee, at the Central Electric Co., told the same story of the hard fight the small dealer has to buck large competitors and the prospect who is looking for the lowest possible price.

Hard Plugging Solves His Problems

A talk with the manager at the Modern Appliance Shop, Kelvinator dealer, operating in a small store off the main business track, brought out the surprising fact that here was a dealer who refused to be licked by adverse conditions, and was substituting ceaseless energy for advantages gained by the larger dealers.

In business only since April, 1938, 71 refrigerators were sold in that year. Since January of this year a total of 30 refrigerator sales has been chalked up, and the figures for 1938 are going to take a beating, this dealer states. Watching him work on a prospect was a good lesson in simple but effective salesmanship.

"My only method is to treat the customer absolutely on the square, to stand firmly behind every appliance I sell, and back up my selling job with good service." This dealer had no problems, he said, that couldn't be offset by "just getting out there and selling all the time."

Utility Co. Operation Is Explained

The Des Moines Electric Light Co., utility dealer, explained the position of the local power company operation. Refrigerator sales so far this year are running below 1938 figures. In 1938, however, a large number of units were carry-overs, which explains, J. T. Schilling, commercial manager, said, why 1938 was a bigger year than 1937.

He estimated that the refrigerator market in the city area was over 60% saturated, and this year's market would be found in the lower-income class and in rural areas, substantiating the opinions of other dealers.

Mr. Schilling remarked that the criticism of the utility by small dealers was in a large sense "unwarranted." He explained that the utility's appliance sales were in no way tied up with the sale of power. The sales are broken down into employe sales, apartment house sales, and dealer sales. The company distributes to two dealers in the area. He said that prices were strictly adherred to, and further governed by an operating agreement of all Iowa utilities.

Salesmen on appliances work on "a book of standards" which outlines prices and allowances. This price outline is never varied, Mr. Schilling claimed. Prices on "distress merchandise"—outdated models—are held at the same percentage of gross profit as new boxes.

The sales force is carefully trained, according to the report, and the sales floor is unusually attractive.

"Sure we are going after business through advertising, demonstrations, contests, campaigns, and promotional work," said Mr. Schilling, "but don't ever believe that we are cutting profit to build load."

He believes in making the utility legitimate competition, but feels that the subsidizing of dealers is entirely wrong.

Sales 15% Better

At Davidson's, one of the large department stores, S. J. Burke, appliance manager, reported that sales this year were up 15% over the same period in 1938. The store sold 152 refrigerators the first three months of 1937, and 125 units in the next year. He looks for a 25% increase this year.

He explained the large refrigerator business done in local department stores by pointing out that the city of Des Moines and the surrounding area had long been "educated to dealing in these stores." He said that the small dealer could hardly compete with these stores, who have had a great many accounts for many years, and so have a huge list of regular customers, both in the city and in rural areas.

"It boils down to this," said Mr. Burke. "We have a stronger outside selling force, our customers are used to us, they know they are going to get good service and good merchandise, and we can afford to advertise widely and give extra services—as free delivery—to get a volume of business."

Warm Weather Awaited

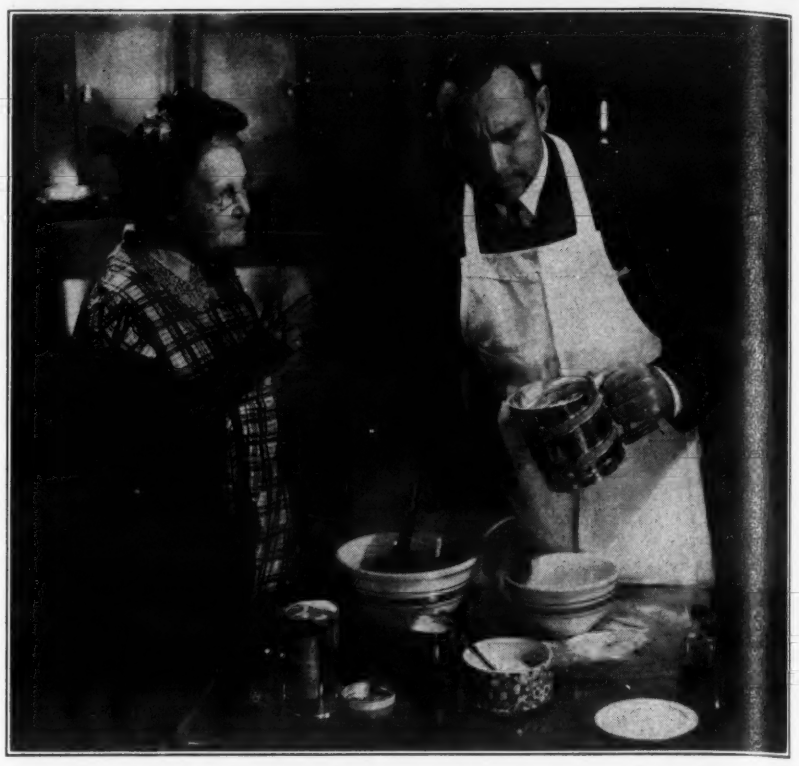
The United Artists Bureau, Inc., a music store, has Bob Eaton as manager of its new appliance department. This department has been set up about three months, sales have been slow up to now, but the warmer weather was being awaited as a boon to this new dealer.

'One More Year'

"Sure there is plenty of stiff competition in this town," said Joe Shinner, manager of Home Equipment Co., Norge dealer, "but I am going to stick at selling refrigerators for at least another year—and I bet I make a little money, too."

This dealer sold 30 refrigerators so far this year, and also does a pretty good business in reconditioned mechanical boxes and old ice boxes. He estimated that some eight or 10 dealers had gone out of business in Des Moines in the last few years, due to the press of competition or "pure bad business sense."

Ray Learns From Grandma



Leonard's spring refrigerator campaign is based on Grandma's old-fashioned tasty recipes. Here the spry little old lady supervises Ray Legg, Leonard general sales manager, as he mixes up what will probably become a batch of cookies, if Ray doesn't get flustered.

Experience Not Necessary

Combined features of speed and safety are claimed for this new ice-cubing machine, manufactured by Thermo Cuber Co., Chicago. The unit, steam operated, has no moving parts, saws, belts, gears, motor, or electric wiring. In operation, the ice slides by gravity through a slabbing grid and onto a cubing grid, through which the cubes drop onto a chute which guides them into a receiver. Operating at 165 lbs. steam pressure, the model shown is said to have a capacity of more than two and one-half tons of ice, totaling 35,000 cubes, per hour.

CROSLEY "Special" SHELVADORS

are the easiest refrigerators to sell this season because customers easily see they are the BEST values on the market !!

*DELIVERED AND INSTALLED...5 YEAR PROTECTION PLAN $5.00 ADDITIONAL...PRICES SLIGHTLY HIGHER IN SOUTH AND WEST.

Crosley Special Shelvadors are an achievement in quality refrigeration, designed and manufactured to give STANDARD service at lowest possible prices. The hermetically sealed Electrosaver insures minimum operating cost. The Shelvador assures greatest efficiency in use—savings in steps, food and energy—long and lasting satisfaction—to which thousands of women are testifying throughout the world.

THE CROSLEY CORPORATION

POWEL CROSLEY, Jr., *Pres.* CINCINNATI

Commercial Business Is Brisk In Smaller Towns Where Competition Isn't Tough; Locker Storages Going Great Guns

By Phil B. Redeker and Robert Price

The last week in March and the first few days in April, during which the parts of Illinois and Iowa visited by the NEWS staff members were graced with some fairly decent weather, apparently brought a fast pick-up in sales in commercial refrigeration for most dealers in these towns.

Although the commercial business was pretty slow until this time, a number of dealers reported five and six sales actually closed in this one week.

Some general observations in the territory covered:

The business in the small commercial field seems divided between dealers of the specialty type, who still do a real job of selling, on one side, and contracting or service firms on the other, who "bid" on jobs. However, these latter classifications are becoming more sales minded.

Fixture houses don't seem to be a factor in selling commercial refrigeration machines.

Some of the "old line" dealers are tending to work the smaller towns surrounding the city in which they are working. Interest is brisk in these towns, and competition isn't so apparent or so tough.

Not much of the business in the crossroads towns is in the line of original equipment, most of it replacing some mechanical refrigeration apparatus that is really in the antique class.

Locker storages are still going great guns, although in some parts of Iowa it might be said that the field is somewhat saturated, with plants often not more than 8 or 10 miles apart. Pleasing thing about the locker situation now is that new plants are going up on a healthier basis financially, according to the experts, as they are being financed either cooperatively, or backed by interests who have put up the necessary capital to keep the operation out of the "shoestring" class.

Dealers In Tri-Cities Getting 6 a Week

The last week in March saw a number of the leading dealers getting five or six jobs in a week, which is a very good week's work for dealers in the cities of Moline, Davenport, and Rock Island.

Refrigeration department of Moline Consumers Co., one of these dealers, had jobs in a number of divisions of the market, some markets, some beer cooling, etc. Harry Feeney, dealer for Hussmann-Ligonier cases, was reported to have sold five markets in this period. C. Leroy Hartman, commercial dealer and service engineer, was working on about five jobs, one of which was a sizeable fur storage room, in which forced-draft units are being installed.

A. J. Kurz, who is "the" commercial refrigeration department for Crescent Electric Supply Co., General Electric distributor, was said to have made five installations during the week, all in small surrounding towns, and all pretty good-sized jobs.

In air conditioning, the dealers contacted indicated that there was considerable figuring going on, but not any jobs being let. About 75 tons of the jobs being estimated should come through before summer, the dealers believe.

Clinton, Iowa Dealer Sells Scientifically

"Not much has opened up yet," was the response from the two commercial refrigeration dealers in the town of Clinton, Iowa.

Crawford Engineering Co. is an old Vilter Ice Machine Co. distributor which also has had Curtis Refrigerating Machine Co.'s low-pressure machines since Curtis started in the business. This firm has done a bang-up job with the Curtis line in all kinds of applications for several years, at the same time continuing with the Vilter line on ice plants and other large jobs.

E. J. Crawford, one of the Crawford family who operates the business, is a real veteran in ammonia refrigeration work, but he readily admits that the Curtis low-pressure machine has proved itself very adaptable and possibly more fitted to the job in markets, restaurants, small institutional jobs, farm milk cooling, etc.

Mr. Crawford does his selling in a scientific manner. He is currently conducting tests on one system which will indicate the amount of power consumed under the conditions which will be met on the job.

In his long career in refrigeration Mr. Crawford has had an experience which is perhaps not duplicated by any other refrigeration engineer. He put in four years in the early '30's supervising the installation of more than 150 refrigerating plants in Soviet Russia.

"We might have exported a lot more refrigeration equipment to Russia," he says, "but Rep. Hamilton Fish started a "Red" scare and attacked our trade relations with Russia, with the result that the Russians quit us, cancelling 178 million dollars worth of refrigeration contracts, already let, and shifting their business to Germany."

Mr. Crawford "hears" that the Russian attempts to employ mechanical refrigeration are meeting with much success these days.

Fink Awaits Improvement In Farm Situation

A. C. Fink of the General Engineering Co. sees no revival of business in his territory until the farm situation improves.

Too many farmers are on the verge of bankruptcy, he thinks. He puts the blame partly on the farmer's speculative fancy, and partly on the easy credit extended by the federal government. The loans are now being called up, he says, and the farmers are finding it difficult to hold their property.

Unit Sales In Des Moines Up 20% Over '38

A better unit sales volume by from 15 to 20% for the first quarter of 1939 over 1938, with particularly good showing from some of the smaller towns was reported by N. H. Seela, manager of the commercial refrigeration department of the Frigidaire branch in Des Moines.

"But this year more than ever, commercial refrigeration must be sold," he declared. "Commercial refrigeration is a specialty item and it demands specialty selling, and unless it is merchandised as a specialty, the volume just won't come."

Best commercial refrigeration salesmen, believes Mr. Seela, are those who have had some sort of a "specialty selling" background. He added, however, that some good salesmen had come out of the service department.

He travels wholesale salesmen through the territory constantly, and, of course, they often assist the local dealer with a particular job, but Mr. Seela doesn't think that the dealers would do any kind of respectable volume of business unless they either train themselves or someone in their organization to be able to do the whole job on commercial—from estimating an installation to installing it.

York Products Turns To Smaller Towns

"With competition as tough as it is in the bigger cities, we're putting a lot of our effort in the smaller towns in the territory," says Carl Muench of York Products, dealer for York in the territory.

"We travel three men in our territory outside of Des Moines all the time, and they're getting the business. A lot of the various types of competition you find in the cities, such as service men, dealers, just don't exist in the country.

"Most of the places we're selling are users of mechanical refrigeration, but the equipment they have is really antique, and we can tell a convincing story of the economy of new equipment."

Mr. Muench has done an outstanding piece of work on locker storage plants in the territory, and it's still going good for him, some 20 plants having been put in this year. He has a rather unusual plan for helping a prospect get into the locker business, which will be explained elsewhere in this issue.

A Service Salesman

B. F. "Woody" Wood, who operates the Acme Refrigeration Co., commercial refrigeration sales and service concern, makes sales in Des Moines and the surrounding territory by keeping his eyes and ears open.

He does the installation and service work for two display case concerns, a counter-freezer manufacturer, and a soda fountain manufacturer. In this work he finds leads for the line of Mills compressors that he carries.

Last year he sold 45 units. Business had been just fair this year until the end of March when a rise in temperature helped him to make five sales.

Tone Co. Concentrates On Air Conditioning

Tone Air Conditioning Co., Carrier dealer, has been concentrating on air conditioning more than commercial refrigeration, and has recently bagged two important jobs—a 60-ton installation for some of the assembly rooms in the Blackhawk hotel, and a job involving three of the floor-type self-contained store coolers for a local clothing store. J. Tone, Jr. of the company also reports that "a job a month" ranging from 7½ to 10 tons during December, January, and February helped the company through the winter nicely.

Rush Finally Starts For Percival

"January was good, February fair, and March terrible until the last week, when a rush started that hasn't let up and which in fact has grown day-by-day," declared S. G. Taylor, sales manager of the C. L. Percival Co., manufacturer of commercial refrigerators.

"We don't know what happened—all we know is that we're going full blast to keep up with the orders we're getting," Mr. Taylor declared.

He did say, however, that much of the business is apparently going into the smaller communities.

Percival, one of the oldest names in the commercial refrigerator business, doesn't let age interfere with progressive ideas. The company aims to make its equipment fit in with current demands and food merchandising trends.

Example of this is a new full-glass front dairy and produce display case, with separate lower and upper compartments, separately cooled and illuminated. Front doors which slide horizontally plus a small shelf on the outside of the case make this case readily available as a "self-serve" store refrigerator.

Percival is proud of its relations with its employes. More than two thirds of its employes have been with the company 10 years or more. Last year the employes averaged 42½ hours per week of work, and officials of the company declare that the hourly wage scale was high over the industry average.

Commercial Field Surveys

These surveys of the commercial refrigeration sales situation in western Illinois and Iowa are a part of the extensive series of "on-the-spot" field reports now being made throughout the Midwest and Southwest by staff members of AIR CONDITIONING & REFRIGERATION NEWS.

Commercial business in the territory is pretty well split up between small specialty-type dealerships and the larger contractor-type concerns—but a sales-minded attitude is increasingly noticeable throughout all types of companies. What these dealers do to get sales, and what they think of the present business outlook, is told on this page.

Rx ROTARY SEAL...

Prescription for Curing Service Headaches

Install proper size ROTARY Replacement SHAFT SEAL in customer's refrigerator compressor, according to simple directions. One treatment will provide complete cure and positively stop all leaks of refrigerant along shaft.

After installation, throw old seal away and standardize on ROTARY Replacement SHAFT SEALS. Their continued use enables you to lead a happy life, free of leaking shaft "headaches."

Rx THIS PRESCRIPTION CAN BE FILLED BY YOUR REFRIGERATION JOBBER

Write for Convenient New Wall Stock List

ROTARY SEAL COMPANY

803 West Madison Street • Chicago, Illinois

Continental European Office: Waldorpstraat 52, Den Haag, Netherlands

Canadian Office: 382 Victoria Avenue, Westmount, Montreal

Old Icebox Is 'Ribbed' In Dealer's Unusual Window Display

WADESBORO, N. C.—Ye old ice box came in for considerable ribbing in a window display staged recently by Fred Gray, owner and manager of Stanback-Gray Hardware Co., General Electric dealer here.

For in one of his windows, in decided contrast to the modern eye-catching display of the latest model G-E refrigerators in the other window, Mr. Gray placed the oldest, most dilapidated appearing ice box he could find.

In the ice compartment of this scarecrow unit he set a blow torch to which was attached a sign reading "Blazo Defroster"; in a section of the food compartment was an old oil lantern described as the "interior and exterior light"; hanging on one of the doors was a tobacco barn thermometer captioned, "Fool-proof Heat Indicator"; and sticking in another door was an ice pick labeled "latest cube release."

A wad of excelsior termed "hot box insulation" lay in the bottom compartment, while in another section of the box was a garden-type sprinkling can called the "sure dew vegetable crisper." Standing at one side was a dishpan, mop, and funnel cataloged as a "three-piece drip tray," and dangling from one of the doors was a twisted old screwdriver tagged "door opener."

To complete the picture, the window itself was adorned with two signs: "Hard Payments, 25 Cents Every Time You Turn," and "Buy Now, They Are 'Going Out' Fast."

1,200 Sales In March Reported By Utility

ALEXANDRIA, Va.—Twelve hundred major appliances with a dollar value of $174,428 were sold in the territory of Virginia Public Service Co. during March, according to dealer sales reported to the utility's headquarters here.

Sales of household refrigerators, with 704 units, were far in the lead in the month's individual appliance list, while electric washers, with 343 units, were second high. Electric range sales during the month amounted to 88 units.

Good figures for the month were shown by commercial refrigeration, with 23 installations reported, and by water heaters, with 36 sales. Six ironer sales also were made by dealers during the month.

Northern division of the territory led in refrigerator sales, with 206 units, range sales, with 40, water heaters, with 17, and ironers, with four. Western division dealers led in washer sales, with 104 units, and in commercial refrigeration jobs, with eight.

Nason Heads New England Westinghouse District

BOSTON—Frank L. Nason, acting manager of Westinghouse Electric & Mfg. Co.'s New England district since the death of former manager James P. Alexander, has been named to take over Mr. Alexander's duties as district manager.

A member of the Westinghouse organization since 1911, Mr. Nason started out with the supply division of the sales department here. In 1924 he was made manager of the central station division, following some work which he did with public utility syndicate requirements prior to the establishment of a new divisional set-up to facilitate sales to light and power companies.

Mr. Nason is chairman of the house committee of the Engineers Club of Boston.

Western Furnishings Mart To Be Held June 26-July 1

SAN FRANCISCO—Date of the next western homefurnishings market in San Francisco has been set for June 26 to July 1, announces Frank K. Runyan, vice president of Western Merchandise Mart. Like the Chicago market, this is an advance of 30 days over the customary market period.

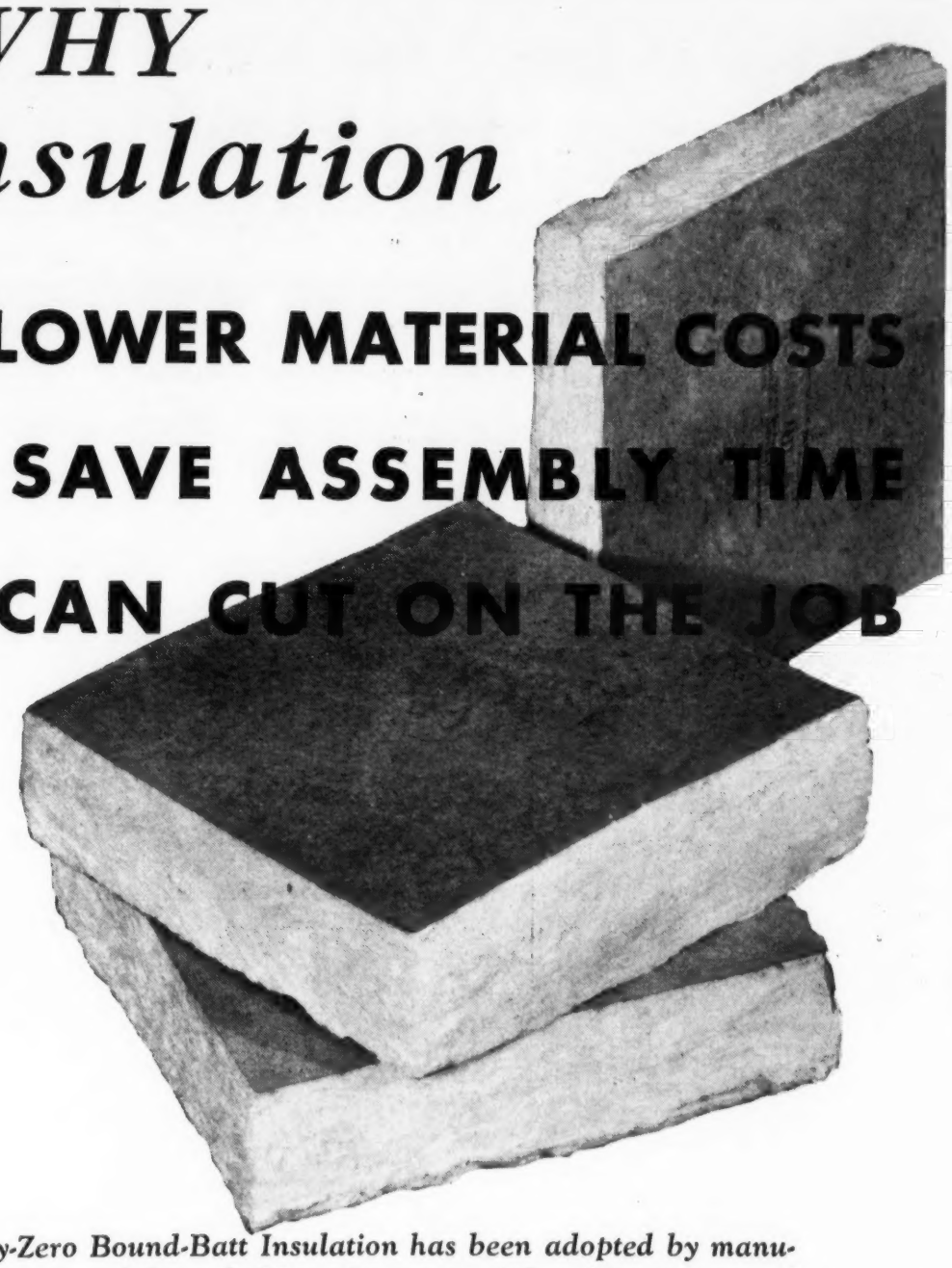
FIND OUT WHY with this insulation

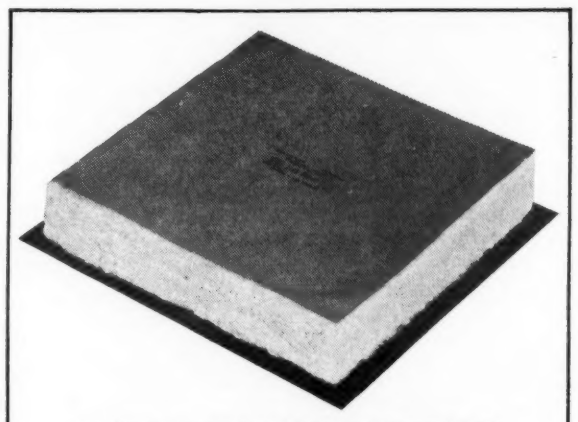
YOU LOWER MATERIAL COSTS

YOU SAVE ASSEMBLY TIME

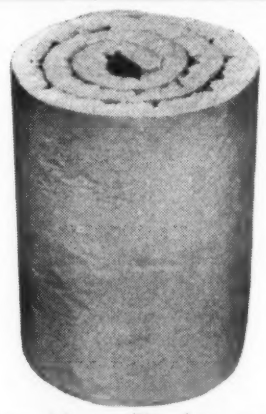
YOU CAN CUT ON THE JOB

Send the Coupon





Sealing Flange: Pre-fabricated Bound-Batt can be furnished at lower cost than previous forms of Dry-Zero. The sealing flange saves time in assembly. It is preferred for heavy production schedules.



Rolls Save Money: For low production schedules, Bound-Batt may be purchased in rolls, stored until needed, and then cut to size. This prevents unnecessary delays and saves pre-fabrication costs.

Dry-Zero Bound-Batt Insulation has been adopted by manufacturers of household and commercial refrigerators and refrigerated motor trucks. They chose Bound-Batt because it is the most efficient commercial insulant known; and because this new form of Dry-Zero offers three specific manufacturing economies. Investigate the advantages of Bound-Batt.

● Bound-Batt is manufactured by an exclusive patented process developed by Dry-Zero Corporation.

This new process saves several costly manufacturing steps. The result is: (1) insulation of the same high efficiency of other well-known Dry-Zero products, (2) at lower cost.

Fibres Bound: The fibres of Bound-Batt are held together by a special binder, which is introduced as a mist during the Dry-Zero graining process.

This binder is so finely atomized that the fibres are joined only at microscopic points of contact. Less than 5/100 lb. of binder is used per cubic foot of Dry-Zero fibre.

Three Forms: Bound-Batt is available in thicknesses of 1 to 4 inches.

It is supplied in rolls 25 ft. long and 12 to 36 in. wide. It is also supplied pre-fabricated to size, in pieces up to 36 in. wide, and any length.

When wanted, the patented Dry-Zero sealing flange is furnished on both rolls and pre-fabricated pieces.

Write for complete information about Dry-Zero Bound-Batt insulation. Find out how Bound-Batt saves on insulation costs in household refrigerators.

Cut with Knife: Bound-Batt is easy to cut with a butcher knife, using a strip of wood to compress the insulation and guide the cutting. When necessary, power driven cutters can be used to speed up production.

Easy to Handle: Assembly time is kept at a minimum because Bound-Batt is stiff enough to handle, yet flexible enough to fit irregular contours. The edges are held in place by the Dry-Zero binder.

Get the Facts right now . .

Send Complete Information on Dry-Zero Bound-Batt.

Name_____

Company_____

Street_____

City, State_____

411

The most efficient commercial insulant known

DRY-ZERO REG. U.S. PAT. OFF. Bound-Batt Insulation

Dry-Zero Corporation
Chicago—222 North Bank Drive
New York—60 East 42nd Street

Commercial Dealer Who Puts on 'Extras' Kept Busy All Hours 7 Days a Week

(Concluded from Page 1, Column 5)

the parts, he found he had to work too hard for the kind of living he was getting.

So one November he started out on his own. He "hung out his shingle" as a serviceman and also took on a line of compressors. Not until February did he sell his first unit, although he did find some servicing work.

"I recall that first sale very well," he says. "I was doing a service job for one of the best markets in town, and I could see that the old SO_2 job they had was pretty well shot. So I approached the owner, told him about the situation, and got permission to put in a new system."

COLD CANVASS CALLS

Using the same tactics on other service calls, Mr. Hartman soon had his business rolling. But not all of his sales are in replacement jobs, for he sought out new business by making cold canvass calls. He doesn't confine his efforts to the Tri-Cities either, and he can reel off names of 10 small towns nearby in which he has installations.

Part of this business in the outlying territory comes through the service work Mr. Hartman does for Beatrice Creamery and other dairies in the territory.

Incidentally, he is finding the country dairies a fine market for commercial systems—and when he clicks they bring very good jobs, because the dairies don't skimp on equipment.

Sales made by Mr. Hartman are financed through a C. I. T. plan made available through the Mills Novelty Co.

"This finance plan has been a great help to me," says the Rock Island dealer. "I think that lack of adequate financing facilities is holding back many a service engineer or small dealership from doing a real job in commercial refrigeration selling. I understand that for the dealer to get financing on his own signature a capital of $3,500 must be shown, and they just can't do it."

"I do not use a list price," declared Mr. Hartman, "but I have set a definite percentage markup on my cost for a job, and below that figure I will not go, no matter what.

GIVES OWN GUARANTEE

This dealer puts a guarantee of his own for a year on every job that he sells.

He makes a practice of putting on any "extras" in the form of valves or auxiliaries that may be needed at the time of the original installation.

"I always try to put all the auxiliary equipment and valves needed on every job—sometimes I put more than really seems needed, but I find it pays if you are going to give a guarantee," he says.

"But if I miss on something I put it on at no charge. That's a good sales point that all dealers could follow."

Mr. Hartman is a very busy man these days. On the Saturday afternoon for which this interview was scheduled, he postponed it a couple of times to take care of five jobs in three different cities. It was well after the dinner hour when this interview took place. He had another job to do that night, and a couple on Sunday.

Mrs. Hartman is kept busy too, for her pre-marital stenographic training is keeping her busy drawing up terms of the contracts and keeping up with other clerical details.

COMPLETE SERVICE SHOP

But there are rewards, too, Mr. Hartman finds. He has bought a fine home on the quiet outskirts of Moline, and has built and fitted out a fine shop complete with lathe and other equipment seldom seen in a refrigeration service shop.

Most of all, he likes his work and finds a real thrill in putting in a new job or making an old one work right.

"I can't rest until I know a job I've worked on is operating absolutely correct," he says.

Another Hartman maxim:

"Never promise to do a job on a certain day unless you can finish it by 5 o'clock that afternoon."

Mr. Hartman sees 1939 as a great year.

"Things were good right through December and January, when we are generally sitting tight," he relates, "and now they are moving so fast I don't see how I can keep up with them."

Case Buyers Want To 'Get Behind Wheel And Drive It,' Koch Official Contends

NORTH KANSAS CITY, Mo.—Furnishing salesmen with dramatic demonstrators that enable them to flash to their prospects the "quality" and "savings" story back of modern refrigerated display and storage equipment provides the extra punch that means more sales and greater profits, in the opinion of Raymond Starr, vice president of Koch Refrigerators, manufacturer.

General business conditions for the North Kansas City firm are very good, Mr. Starr said, with sales for the year's first three months about 20% greater than a year ago. This sales rise is now in its third year—for in 1938 the company's volume showed a substantial increase over 1937, which up to that time had been the top year in Koch's more than half-century in refrigeration.

Of course, 1937 was a good year for practically everybody in refrigeration—but 1938 wasn't, which makes the Koch increase even more noteworthy. This year the company's distributor organization has been expanded, and sales have grown apace with it.

3,500 REPRESENTATIVES

There are more than 3,500 Koch representatives in the United States and territories, each of whom is constantly contacted with sales bulletins, contest bulletins, and new literature, an intermittant house organ, sales kits, specimen pieces, etc., Mr. Starr said.

"A corner-section, illustrating how Koch insulates cases, even in the corners, is in every sales kit. It graphically shows that there are no lumber braces in the framework that can allow heat to enter the case and cold air to escape. Every Koch welded steel case is insulated 100%, a complete blanket of heat-resisting material protecting every part of the equipment.

"Sales helps, such as this corner section," continued Mr. Starr, "allow good salespeople to use their ingenuity and initiative. Good selling is good showmanship, and the man who does the best job of dramatizing his story does the best job of selling.

STEAK SHRINKAGE

"Our steak model, a papier mache facsimile of a prime meat cut, with its 'knock-down' features, is a real tool for the clever salesman. It's a fine piece of corn-fed beef at first glance, but a twist of the wrist, and presto—it has shrunk in size and its fine color is gone. It graphically illustrates how poor refrigeration means more meat in the scrap box and a pilfering of profits from the cash register."

Another stunt used by several Koch distributors is to load a self-contained fixture, condensing unit and all, onto a trailer, and then visit the hinterlands with it. Driving a refrigerated fixture up to the door of a merchant in an out-of-the-way town immediately excites and interests that business man. Many a sale has been made as a result of the trailer, Mr. Starr said.

"To sell commercial refrigerator equipment successfully," he continued, "a distributor must adequately display representative models on his floor. The sale of the average commercial fixture, including the machine, will run from $700 to $1,000. The purchaser usually won't buy until he sees, feels, and plays with the fixture. In the words of the motor car distributors, 'he wants to get behind the wheel and drive it.' The man who wants to buy a 12-foot double-duty meat case will not be satisfied to see a picture or an actual walk-in cooler.

"Your users, of course, enlarge your sales room and add to your selling staff. With a group of satisfied customers in your territory, you have more merchandise to display to your prospects, and more sales helps . . . because every customer's boost is a big push in the direction of another sale."

Koch maintains a large laboratory, including hot rooms, testing rooms, etc. Two new pieces of equipment that have just come out of the laboratories are a two-temperature display case and a new type of vegetable case, called the "Crispeteria."

The Crispeteria, said to be "absolutely different" from anything now on the market in design, construction, refrigeration, and lighting. It will be announced to the trade and general market soon.

TWO-TEMPERATURE CASE

The two-temperature case has space above for display of meat products or delicatessen. The storage compartment is arranged so that frozen items can be stored at proper temperatures, even though a 38° case temperature is maintained elsewhere in the case, it is claimed.

Mr. Starr attributed much of Koch's success to the fact that the company does not manufacture and sell a condensing unit. This policy enables the company to select top-flight distributors in each territory, regardless of the compressor line they sell. When a case or cooler is sold, a condensing unit goes with it, meaning a double sale and a double profit.

Present status of the company's export business is summed up in the following paragraphs from the April 4 Kansas City Star:

> In the first quarter of this year Koch Refrigerators, manufacturers of commercial refrigerators, exported more of its merchandise than in any comparable period in its history, it was announced here yesterday by Millard Mayer, president.
>
> The company's export business, which a few years ago virtually was negligible, today is substantial. Export business in the quarter just ended was nearly four times greater than a year ago.
>
> "The world is the company's market," Raymond Starr, vice president, said. "The company yesterday received orders from Cuba, Kingston, Jamaica, and Turkey."

"We have no direct selling organization for foreign sales," said Mr. Starr, "and to my knowledge our only method of contacting these countries has been through our consistent advertising in the NEWS. Yet we are constantly receiving inquiries from the Scandinavian countries, South Africa, South America, and many Asiatic states.

"Were it not for currency restrictions in a number of countries, our foreign business probably would be five times greater."

Invented BY A SERVICE MAN FOR SERVICE MEN

DETROIT No. 450 MEAT BOX CONTROL

The High Pressure Cut-In feature of the new No. 450 Meat Box Control is designed to eliminate at least two service calls a year—service calls made necessary by seasonal temperature changes which prevent the conventional pressure type control from cutting in. The development of this unique feature is the result of an invention by a serviceman who wanted some means of automatically overcoming these cold weather conditions, and eliminating the resulting service calls.

Where the compressor is located in an unheated space, the *High Pressure Cut-In* feature automatically starts the compressor when the high-side pressure drops to an adjustable, predetermined point. After starting, the low-side control automatically takes over. This eliminates failure of the system to operate in cold weather. It also prevents freezing of water-cooled condensers because it cycles the system before temperature at the condenser falls to freezing.

Trouble with bad humidity conditions within the Meat Box and spoilage of meat through water condensation and slime caused by long off periods is prevented by more frequent cycling.

Thus does the Meat Box Control eliminate a large percentage of Control service calls, provide more satisfactory system operation and materially reduce meat spoilage.

With the Meat Box Control the user can easily change the cut-out point by means of an external knob adjustment. In that the cut-in setting is "fixed", any adjustment in the cut-out point will not affect the cut-in setting. This is important, because any change that the user may make in the cut-out setting will not affect the defrosting cycle. A specially calibrated range plate shows the correct setting for defrosting cut-in for each of the three common refrigerants—Methyl Chloride, Sulphur Dioxide and Freon.

Included in the No. 450 series Control Switches are pressure and temperature type instruments, either with or without a high pressure cut-out. These instruments embody several new and exclusive features. Write for Bulletins 181 and 182.

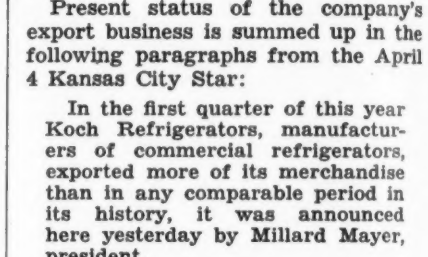
DETROIT LUBRICATOR COMPANY

General Offices: DETROIT, MICHIGAN

Canadian Representatives—RAILWAY AND ENGINEERING SPECIALTIES LIMITED, Montreal, Toronto, Winnipeg

Anaconda Copper Refrigeration Tubes

Dependable!



THE AMERICAN BRASS CO

FRENCH SMALL TUBE BRANCH

General Offices: Waterbury, Conn.

TYPE WP

Electrimatic

WATER REGULATORS

Write for our catalog describing refrigeration and air conditioning controls available in sizes and types to suit your requirements.

THE ELECTRIMATIC CORPORATION

2100 INDIANA AVE., CHICAGO, ILL.

Air Conditioning

Speaker's Bureau Helps To 'Spread Gospel' Of Conditioning

(Concluded from Page 1, Column 2)

and of air-conditioning business establishments.

This committee also is working on establishing uniform standards of figuring heat gain on any building, and is working out bid limitation problems with consulting engineers.

One of the most unusual activities of the council is the maintenance of a speakers bureau which serves 31 business organizations in the city. Speakers are furnished to any club or organization interested in the subject of air conditioning. The speakers bureau also supplies "public speaking instructors" for women's clubs and other organizations interested in learning effective speaking.

This instruction program consists of a series of four meetings, the first of which is devoted to the fundamentals of public speaking. Later those attending are asked to make short talks about things which interest them personally. At the third meeting, each "student" is given a choice of four topics, to be used as the subject of the "big speech" at the fourth session of the class. These topics are, lighting, electric refrigeration, electric cookery, and air conditioning.

Instructors for the "speakers bureau" report that nine out of ten men and women choose to talk on the subject of air conditioning when selecting a topic for the final speech of the series.

The speakers bureau, newspaper advertising, mail promotion, and local publicity all combine to "spread the gospel" of air conditioning.

Walter P. Davis is assisted in his efforts by Joseph Davis, Joseph Davis, Inc., York distributor, and currently president of the council. Other officers are Fred Kendall, Jr., vice president, and Albert E. Stratton, treasurer.

Member firms in the council pay $20 per year each to meet expenses of the organization. Current financial position of the group is strong, with nearly $1,000 in the treasury and no unpaid bills.

Much of the council's work is handled by committees, each of which has its own chairman and secretary. Committees appointed by President Joseph Davis for the current year are as follows:

Program Committee: Sherman W. Strouse, The Trane Co., chairman; H. S. Schall, Abrahamson Corp.; E. L. Zudeck, American Lubricants Co.; E. H. Weigel, Rundel & Weigel; R. A. Murphy, Cooney Refrigeration Co., Inc.

Winter Air-Conditioning Committee: A. G. MacDiarmid, Spencer Air Cond. Co., chairman; Lars Hedstrom, General Air Cond. Co., Inc.; H. L. Householder, Householder Heating Corp.; M. J. Rodman, Rodman Engineering Co.; Glen Bolton, N. L. & O. Power Co.

Process Air-Conditioning Committee: DeWitt L. King, Niagara Blower Co., chairman; Roswell Farnham, Buffalo Forge Co.; Harry Schmidt, Fedders Mfg. Co.; E. R. Cooney, Cooney Refrigeration Co., Inc.; R. H. Mollenberg, Mollenberg-Betz Mach. Co.

Summer Air-Conditioning Committee: H. D. Rice, N. Y. Fire Ins. Rating Organization, chairman; L. N. Reed, Cooney Refrigeration Co., Inc.; J. K. Hawks, General Air Cond. Co., Inc.; J. L. McDevitt, Joseph Davis, Inc.; G. H. Dietrich, McCarthy Bros. & Ford; John Minor, Coleman-Stratton, Inc.; A. L. Stevens, Mollenberg-Betz Mach. Co.; Mr. Botsford, Geo. W. Drake Co.; W. A. Meiter, Worthington Pump & Mach. Corp.

Sales Practices Committee: T. L. Anderson, Schwegler Bros., Inc., chairman; E. A. Brand, B. N. & E. Power Corp.; H. C. Schafer, Iroquois Gas Corp.

Automatic Heat Committee: Joseph Collins, Frontier Engr. Corp., chairman; H. L. Householder, Householder Heating Corp.; Lars Hedstrom, General Air Cond. Co., Inc.

Air-Conditioning Accessories Committee: G. A. Wright, C. J. Hamlin Jr. & Co., chairman; Walter Voisinet, J. J. Nesbitt, Inc.; Arnold Kamman, A. Kamman Co.

Publicity Committee: Marshall Drake, Geo. H. Drake, Inc., chairman; C. A. Michie, B. N. & E. Power Corp.; T. I. Messenger, B. N. & E. Power Corp.; C. E. Daly, Buffalo Evening News; George Foster, Buffalo Courier-Express.

Membership Committee: H. C. Day, American Radiator Co., chairman; C. P. Yoder, B. N. & E. Power Corp.; S. B. Howe, General Air Cond. Co., Inc.; A. L. Colvin, N. L. & O. Power Co.; Dr. N. W. Strohm, Medical Society of Erie County.

Constitution and By-Laws: H. C. Schafer, Iroquois Gas Corp., chairman; H. C. Rice, C. Kurtzmann & Co.; J. F. Clement, Buffalo Courier-Express.

Finance Committee: Joseph Davis, Joseph Davis, Inc., chairman; A. E. Stratton, Coleman-Stratton, Inc.; T. L. Anderson, Schwegler Bros., Inc.; Marshall Drake, Geo. H. Drake, Inc.; Fred Kendall, Jr., Humboldt Sales Corp.

Association Problems Are Discussed At Rochester

ROCHESTER, N. Y.—Problems in connection with local and national air-conditioning associations were discussed during a recent meeting of air-conditioning dealer members of the Electrical Association of Rochester, Inc. at the Chamber of Commerce building here.

Of particular interest to the Rochester association is the merchandising of package air-conditioning equipment and room coolers. According to members of the association prices on remote systems are stable in the Rochester area.

Henry Knowlton of the editorial staff of AIR CONDITIONING & REFRIGERATION NEWS reported on activities of local air-conditioning councils in other cities, and discussed the air-conditioning code situation with the group.

Present at the meeting were William H. Stell, Rochester Gas & Electric Corp.; Ray K. Serfass, York Ice Machinery Corp.; R. D. Pike, Rochester Gas & Electric Corp.; I. B. Coe, Blower Systems, Inc.; Fred G. Laube, Laube Electric Co.; N. E. Shelton, Carrier Corp.; Earl W. Ford, Chapin Owen Co., Inc.; E. J. Kramer, Electrical Association of Rochester, Inc.; Frank M. Beaucaire, Beaucaire, Inc.; and Jan C. Betlem, Betlem Heating Co.

Air Conditioning Co. Moves To Modern Offices

TULSA, Okla. — Air Conditioning Co., Inc., formerly located at 222 Central Bank Bldg. here, has moved to a new modern display room and office building at 1136 S. Peoria St.

Forrest W. Shoemaker, president of the company, has been active in the air-conditioning and mechanical trades here fore more than 16 years.

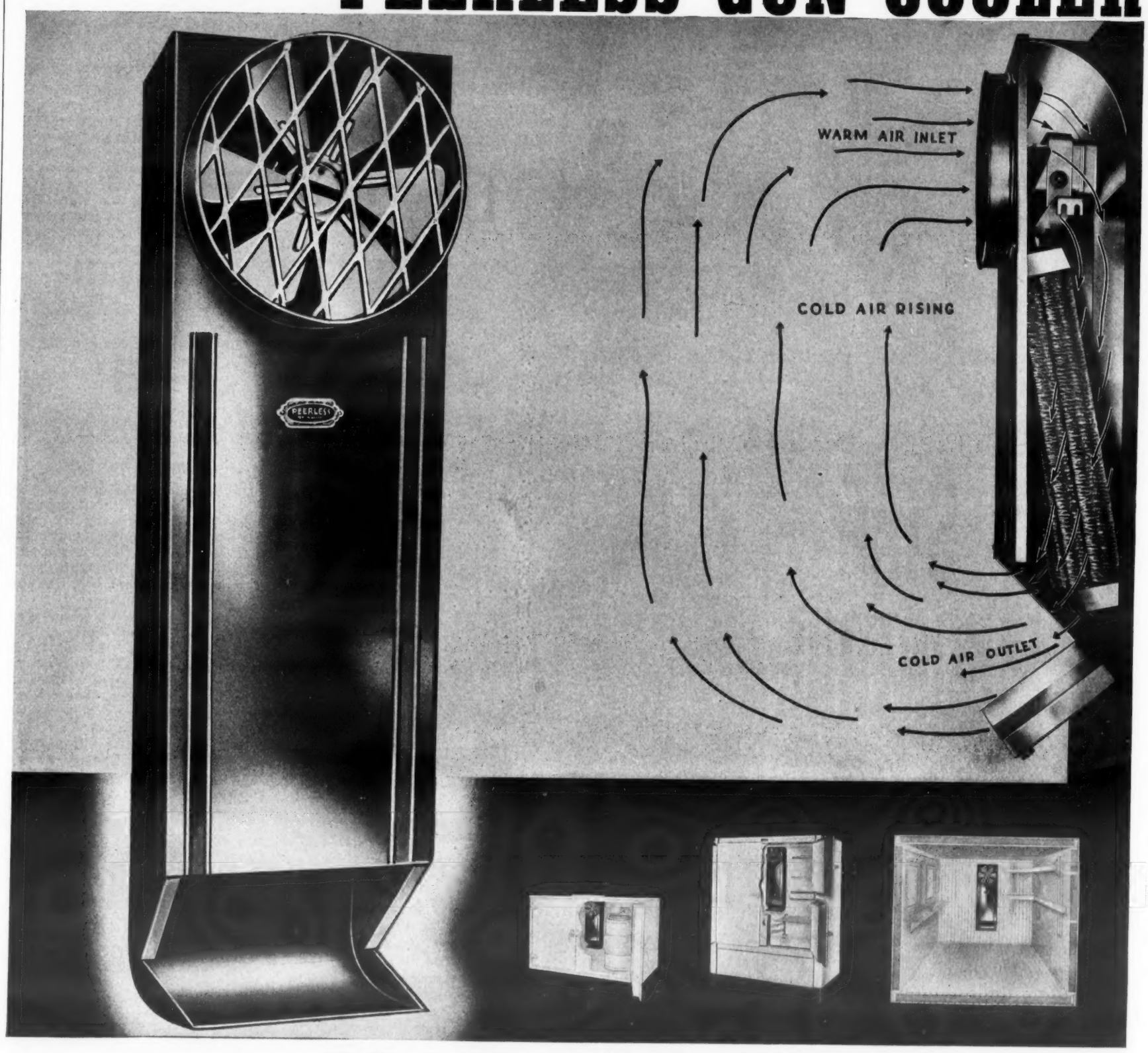
Comfort Slogan Features American Blower Ads

DETROIT — "Comfort Cooling Builds You Up" is the slogan to be used throughout American Blower Corp.'s extensive newspaper advertising campaign, beginning in May.

The theme not only will feature metropolitan newspaper advertising in key cities, but also will extend to American Blower's direct mail and dealer helps, centering around a new "authorized dealer" sign.

Slogan will be developed by picture-caption treatment stressing benefits of comfort cooling in homes, apartments, and business offices. The advertisements are planned to attract prospects for home and apartment comfort cooling products while selling owners of commercial establishments on the customer appeal of commercial comfort cooling installations.

PEERLESS GUN COOLER



PACKAGED REFRIGERATION

FROM THE BOTTOM UP

The PEERLESS Gun Cooler introduces a new type of refrigeration to the general fixture business. Do not be misled that this is just another type of Unit Cooler! The cold air in the Gun Cooler is forced to the bottom of the case, fixture, walk-in cooler or box being refrigerated; it cascades along the floor of the fixture like quicksilver spreading to the farthest corners. The air is slightly warmed as it rolls along the floor of the fixture, and each succeeding wave of cooler air slides under it.

In this manner vertical air circulation is maintained in every part of the fixture. The fan, being mounted on top of the unit, draws in the warmer air from the entire top of the fixture; and the warmer air rolls along the top of the fixture into the fan, exactly the same as the cold air runs along the floor away from the Gun Cooler. FROM THE BOTTOM UP moves the moist cold air . . . that's the principle of the PEERLESS Gun Cooler.

COMPACT IN SIZE

The storage space is increased as the Gun Cooler is designed to give more and better refrigeration with minimum coil space.

MODERN IN DESIGN

Its up-to-the-minute styling will harmonize with any fixture. The case is made of polished aluminum. The Thermek coil is pure copper, tin plated for greater resistance to corrosion.

THERE ARE 7 SIZES WITH CAPACITY RANGES FROM 1200 - 12000 B.T.U.'s PER HOUR

PEERLESS OF AMERICA, INC.

GENERAL OFFICES • 515 WEST 35th STREET • CHICAGO, ILLINOIS

MIDWEST FACTORY
515 W. 35th STREET
CHICAGO, ILLINOIS

NEW YORK FACTORY
43-20 34th STREET
LONG ISLAND CITY

PACIFIC COAST FACTORY
3000 SOUTH MAIN STREET
LOS ANGELES, CALIF.

SOUTHWEST FACTORY
2218 N. HARWOOD ST.
DALLAS, TEXAS

EXPORT DIVISION
P. O. BOX 636
DETROIT, MICH., U.S.A.

Commercial Sales Methods

Operator of 'One-Man' Commercial Dept. Induces Nearly Everyone To Aid Him

DAVENPORT, Iowa—How to run a "one man" commercial refrigeration department and to operate in both a fairly large community and in nearby "crossroads" communities is being demonstrated by A. J. Kurz of the Crescent Electric Supply Co., General Electric distributor here.

Mr. Kurz does this job by taking advantage of every possible angle that can assist him in his business.

It is obvious that Mr. Kurz couldn't afford to "cold canvass" the size territory in which he works. He gets his leads by dealers in the Crecent Electric Supply Co. organization, all of whom "bird-dog" for him.

"Kurz attends all of our dealer meetings, and never loses an opportunity to meet and talk with the dealers in our territory," declares Tom Kelly, head of the distributorship.

"He is, if you please, on a "sonova— basis' with the dealers, and because he is he can keep after them constantly to supply him with prospects."

The dealers, of course, get a share in the commissions on all such leads which result in a sale.

To save Mr. Kurz further time for his selling work the distributor's service department performs the function of figuring on the amount of refrigeration and type of system needed for each job, and carries out the details of the installation once the job has been sold. The distributor will accept no job until the service and installation department has submitted its estimates on the job.

While this might perhaps seem to slow up the sales procedure, it has an advantage in impressing the prospect with the thoroughness with which the company goes about its work.

For his sales operation in Davenport the Peoples Light Co., utility which merchandises G-E appliances, furnishes him a showroom in its main building in which he maintains a pretty complete display of General Electric commercial refrigeration equipment. This enables him to show his wares to prospects both in and out of the city who may want to see a sample.

And the power company salesmen are not adverse to turning up a lead for Mr. Kurz every so often.

Salesmen of Super-Cold Must Know Meat Cuts

DALLAS, Tex.—To help them talk over merchandising problems more intelligently with their merchant-customers, salesmen for the Dallas branch of Super-Cold Corp. are required to understand the "beef cut chart" prepared for butchers by Swift & Co.

H. W. Cline, branch manager, decided upon the move after hearing an explanation of the various cuts of meat by W. G. Nycom, Dallas manager for the packing company. Mr. Nycom told of the problems facing the retailer in the judicious purchase of beef and other meats, and the trend to cut purchases rather than to buy in halves or quarters, as formerly.

"Knowledge of the meat-cutting chart," said Mr. Cline, "will enable our salesmen to be of best service to both us and our customers: They should be able to discuss with meat dealers the problems of cuts which the latter face every day. That knowledge, to my mind, is equally important to a salesman as that of technical knowledge relating to his product.

"If we cannot help our display case purchasers sell more meats, then we are failing in our purpose."

Russell Co. Opens Branch

ASHEVILLE, N. C.—Russell Furniture Co., Universal appliance dealer of Enka, N. C., has opened a branch store in West Asheville.

'Heads-up' Merchandising and Well-Paid Salesmen Bring Distributor Success

MEMPHIS, Tenn.—Commercial refrigeration salesmen employed by the Mitchell Refrigeration & Supply Co., McCray distributor here, do not have to "borrow a dollar every morning to keep going," according to C. W. Mitchell, general manager.

Salesmen for the Mitchell Co. operate on a substantial drawing account, and cover the entire Memphis area; two men concentrate in Memphis, one in Arkansas, one in Missouri, and one in western Tennessee. In addition, a retail dealer operates his own business in Tupelo, Miss.

Mr. Mitchell reports that business in small display cases has been excellent in recent years. "Small stores and markets have been forced to put in refrigerated cases," Mr. Mitchell said, "and they represent an important portion of our business. The small grocery store handles a line of meat to compete with the chain stores, and we find many restaurants using 6-foot display cases to show steaks, chops, sea foods, salads, and other perishable foods."

MOST UNUSUAL

"One of the most unusual installations we have ever made," Mr. Mitchell continued, "was in the Boswell Cafe, which adjoins the Palmer hotel in Paduca, Ky. We installed a 10-foot display case on the sidewalk in the front of the restaurant by cutting out the plate glass front of the store. The case projects from the building line on to the sidewalk, with the lower edge of the plate glass window resting on top. A sealing strip was installed between the top of the case and the plate glass, making a seal against the weather.

"This installation brought a great deal of attention, and has proved to be a great asset for the owner of the restaurant. Everyone walking by stops to look in the display case, which is virtually under-foot, and inspects the food on display."

FLORIST SHOP JOB

Another installation of unusual interest is a florist shop walk-in refrigerator installed in Oxford, Miss. This 6 x 8-foot case has a plate glass front, and is fitted with three plate glass doors, so all flowers in the refrigerator can be seen from the outside without opening the box.

Mr. Mitchell does not worry about competition in the commercial refrigeration business. Every man in the organization has been with the company since it started in 1936, and he feels that a high grade personnel is in a measure responsible for the success of his operation.

The company takes advantage of many kinds of advertising and promotion to get prospects. Newspaper advertising is used in the classified columns of the local papers, giving a description of a display case that is on sale, the salesman's name, and his home telephone number. Mr. Mitchell has found this to be a very valuable way of securing prospects, and he sees to it that the "specials" advertised in this fashion are "good buys."

"If a man is in the market for refrigeration equipment and reads our advertisements, we know he will come and see us before he buys anything," Mr. Mitchell relates. "We are able to offer some unusually good buys in commercial cases, because we re-build all the old refrigerators we get and condition them for resale."

Specifically, the Mitchell Co. shop will take an old ice bunker display case, cut the bunker down so it is the correct size for coils, install new insulation, build a compressor housing on the end, re-enamel the entire case, and put it up for sale.

'JUNK' BECOMES PROFIT

In this way, the "old junk" that is common in the commercial refrigeration business is converted into profit, and into a potential source of prospects for new equipment. Many merchants come in to look at re-built units and remain to purchase new cases, Mr. Mitchell asserts.

Display rooms of the Mitchell Co. are in a well-lighted store, with ample room to show every model case and compressor which the company has for sale. New merchandise is shown at the front of the store, with small cases and re-built units located near the back. The company displays a full line of McCray refrigeration machines. In addition, a "used refrigerator" display room is maintained at a different address in Memphis.

All installation work on any commercial refrigeration job is handled by the company's own men. This includes building of walk-in refrigerators, doors, insulation work, building of special liquid (bottle) cooling boxes, florist boxes, and all types of special application.

WILL BUILD INTERIOR

"We will build a complete store interior for any owner, if it is necessary to get the business," Mr. Mitchell said.

Other sales promotion ideas used by Mr. Mitchell include mailings to a complete list of prospects every three months, followed by personal coverage. The organization works closely with the local butcher supply houses and other organizations which cater to commercial stores and shops.

An unusual display was set up by the Mitchell company at the Memphis County Fair last year in connection with four large produce houses. The display included two typical store interiors, one modern and one of the old fashioned type, and won first prize as the best exhibit at the fair. Greatest interest during the fair was in a vegetable display case shown in the "modern" store, it was found.

USES TRAILER

Mr. Mitchell has used a trailer to take a meat display case around the rural sections of his territory, but reports that the results from this activity were only fair.

"Competition does not stay long in the commercial refrigeration business," Mr. Mitchell said. "Our business is established, our men are well paid, and we expect to continue expanding by getting personal and promotional coverage of our territory. We are favored with a good power rate (TVA rate is 2 cents per kw. hour average) and expect good business this year."

5 STAR CONTROL

More Accurate
More Dependable
More Compact
More Attractive
Easier to Install

THE NEW CUTLER-HAMMER LINE THAT MEETS EVERY NEED OF MODERN COMMERCIAL REFRIGERATION AND AIR-CONDITIONING

Full and comprehensive knowledge of the needs of the cooling and refrigerating fields dictated the design and construction of the new Cutler-Hammer Control for commercial refrigeration and air conditioning.

And here in 4 models—temperature, pressure, high pressure cut-out or a combination of temperature, or pressure and high pressure cut-out, is a line that applies to more than 95% of all recognized installations . . . from ⅓ hp. to 150 hp. It presents a new simplified design, a dependability and accuracy of operation positively unique. It presents as well marked advantages in ease of wiring and installation, easier, simpler range adjustments, a wider range of operation, and so many other unique advantages it is impossible to list them here. It is the old story of Cutler-Hammer leadership again, of broad knowledge and experience gained in *many* fields and applied to *this* field . . . with the result that this Control stands alone. This new *advanced* Cutler-Hammer Commercial Refrigeration Control is available, on request, on all leading Refrigeration Equipment. Write for full descriptive literature. CUTLER-HAMMER, Inc., *Pioneer Electrical Manufacturers,* 1362 St. Paul Avenue, Milwaukee, Wisconsin.

CUTLER-HAMMER MOTOR CONTROL C-H

FOR MOTOR CONTROL TO MATCH CUTLER-HAMMER BULLETIN 9586 Write for descriptive literature

Experience as Grocer Helps Commercial Dealer Who Advises, 'Get Off the Beaten Path'

INDIANAPOLIS — "Get off the beaten path" for commercial installations if you want to increase your profits and lower your competition, is the advise of Harry Lang,, Sherer-Gillett refrigerator dealer here.

Mr. Lang became convinced of the value of this out-of-the-ordinary products selling when he pioneered Sherer's "Vegetaire," refrigerated produce display case, in this territory. With not even a catalog page as a selling help and with only his own ideas of what the product should be like to guide him, he got an order for the first case of this type ever made.

From that one order, he landed eight more, so that this territory became a practical "testing laboratory" for the new equipment.

Selling-up the prospect to a higher-priced all-porcelain case is another extra-profit maker in Mr. Lang's selling book. When prospects are "on the fence" regarding equipment, he points them for the higher-quality jobs by talking ease of cleaning, resistance to daily wear and tear, and refers them to owners of other all-porcelain jobs for comments about its appearance and wearing qualities.

Having himself been in the grocery business, Mr. Lang doesn't hesitate to speak his mind to food store merchants about so-called "periods of recession." He knows the food merchants' problems—and he is convinced that, as long as people must eat, food stores will provide a steady market for refrigeration.

If the food merchant will go after the business available, he can always afford to buy such new equipment as the needs of his business dictate, Mr. Lang believes. Working on that belief, in good times and bad, has brought him a steady stream of sales.

Stick To Commercial Refrigeration and Forget the Sidelines Is Advice Given By Former N. Y. Sales Manager

L. T. M. Ralston Says Best Salesmen Are Those Who Can Talk Their Customers' 'Language'

NEW YORK CITY—"If you're going to be in the commercial refrigeration business, stick to that business, and forget the sidelines, no matter how profitable they might seem to be."

That would be the first rule of business that would be laid down by L. T. M. Ralston, former manager of the commercial refrigeration department of the New York Kelvinator branch, if he were advising a friend who was starting up a commercial refrigeration dealership.

APPLY TO LARGE OPERATIONS

Mr. Ralston, who resigned his position recently to join a well-known New York investment counsellor, was asked to express his thoughts on selling commercial refrigeration as he would give them to a friend who was just getting into the business.

Passing over such salient points as adequate financing and other points having to do with the management of the business, Mr. Ralston gave his views on some of the factors which make for success in the sale of commercial refrigeration machines. These views, he said, would apply to big city operations only.

A FULL-TIME JOB

"When I said that a commercial refrigeration salesman should stick to the one line of endeavor, I meant that he shouldn't be fooling around with a bunch of other items like knife-sharpeners and the like," Mr. Ralston stated. "Selling commercial refrigeration is a full-time job, and demands full-time attention.

"The dealer will help both his and his salesmen's chances of success if he sets up a good shop—a shop in which equipment can be reconditioned," Mr. Ralston continued.

"Reason for this is that the commercial market today is a replacement market, and unless the dealer is in a position to handle trade-ins profitably, he and his salesmen are at a decided disadvantage. Also, the reconditioned equipment gives him certain prospects to sell which he might otherwise not be able to touch, Mr. Ralston contends.

KNOWLEDGE OF PROSPECT'S BUSINESS

"Concerning salesmen, my experience has been that the men who do the best job are the ones that have some knowledge about the businesses to whom they are trying to sell—who have been engaged in, or who know something about, the retail meat business, the beer business, the bakery business, etc.

"If the salesman doesn't know anything about these businesses, he should make it a point to learn about them, preferably by talking to someone who does know what it is all about.

"Whole point of this is that the commercial salesman must speak the 'language' of his customers. He must be able to make a presentation about his own equipment, it is true, but if he doesn't talk the customer's 'language,' he may never get the opportunity to talk about the product he is selling."

STORE FIXTURE HOOK-UP

One of the smartest moves the big city dealer or salesman can make is to get a tie-up with a first-class store fixture house, so that he will get the contract for all the installation and servicing work on refrigeration machinery that may be included in the fixture house's contracts.

"In the big city, the fixture houses are often given the entire contract for outfitting or remodeling a store, since the owner doesn't want to fuss with a lot of individual dealers, and because he prefers to put his confidence in one concern.

"At the same time, the fixture house business in the large cities is more or less of a specialty, and the fixture man doesn't want to have any more to do with mechanical equipment or servicing than is absolutely necessary. So he is glad to turn over the whole contract for the installation and servicing of mechanical equipment to some refrigeration dealer, and it might just as well be you."

'QUALITY' SALES APPEAL

On the matter of sales appeals, Mr. Ralston stated that the smart salesman today is selling "quality."

"I sincerely believe that the era of the 'price-cutter' is coming to a close," asserted Mr. Ralston. "If I were on a job today where the bids averaged around $500, I would much rather be in with a $480 or $520 bid than I would with a $380 bid.

"Prospects are beginning to look with suspicion upon the salesman or company who is always 'way below the others on the price. The prospect feels that maybe something is missing in the product or the service, and usually he is right."

Asked to define what he meant by "quality," Mr. Ralston pointed out that it is a hard thing to define, but might be a combination of an expression of the merits of the product itself, plus the reputation of the company that makes it and the company that sells it. The quality story, to be effective, must be effectively presented, he asserted.

SHOW OTHER INSTALLATIONS

Showing the prospect other jobs which are similar to the one he is contemplating, particularly if they are working successfully, is just about the best sales tactics that a commercial refrigeration salesman can employ, Mr. Ralston believes. This is particularly true if the user of the job already installed is a talkative fellow, because he is then likely to do a far better selling job than the salesman could ever do.

There are still some little-worked markets for commercial refrigeration, in addition to the heavily competed for food stores, restaurants, etc. Chief among these Mr. Ralston puts the retail bakery.

BAKERY CASE MARKET

Bakeries are very anxious now to sell their cream pies and other perishables the year around, and every big city bakery shop is going to have a refrigerated display case, so commercial salesmen are missing a great bet if they don't drop into any bakeries that they may happen to pass, Mr. Ralston thinks.

Commercial photography offers another market that isn't overworked, he says. From one lead in New York City, Mr. Ralston developed several thousand dollars worth of business in this field, and it all came very easy. Nice thing about the photographers is that they buy a pretty sizeable order. The requirements of a photographer need a little special study, but this should whet the salesman's enthusiasm.

DRAFT BEER BUSINESS

Mr. Ralston also thinks that now is the time to go after the draft beer business. Most of the places in existence today have passed the "crucial" stage in the struggle for existence among beer gardens, and are apparently here to stay, he thinks. Also, they are about through experimenting with a whole host of funny ideas about cooling beer, and are ready for the best mechanical refrigeration equipment available.

At the start of his "outline of success" for a commercial dealer, Mr. Ralston warned against handling any sidelines, but he makes one exception which really isn't a sideline—water coolers. Water coolers are so easy to sell in season, he says, that salesmen who won't trouble with them are missing one of the biggest profit opportunities offered them.

Enterprise Adds Crosley

HAMLET, N. C.—Enterprise Hardware, owned and operated by Mr. Thomas, has taken on the complete line of Crosley appliances.

SPECIFICATIONS for Air Conditioning and Refrigerating Installations

ONE of the most exacting duties of an architect or engineer is to draw concise and inevasible specifications for the guidance of contractors and the protection of his client. Such specifications should be founded on the specifications and regulations of nationally known and accepted authoritative bodies interested solely in public welfare.

The National Board of Fire Underwriters, Underwriters' Laboratories, Inc., and the National Fire Protection Association are institutions of this class. Each has contributed to the fundamental specifications covering air conditioning and refrigerating machinery. Every architect and engineer should have a copy of their rules and specifications:

(1) NBFU Pamphlet No. 90 entitled, "Regulations of the National Board of Fire Underwriters for the Installation of Air Conditioning, Warm Air Heating, Air Cooling, and Ventilating Systems as Recommended by the National Fire Protection Association." (This is also the A. S. A. standard Z33.2). Address National Board of Fire Underwriters at 85 John Street, New York City, or 222 West Adams Street, Chicago, Illinois, or Merchants Exchange Building, San Francisco, California.

(2) Underwriters' Laboratories, Inc., Subject 207, "Standard for Air Conditioning and Commercial Refrigerating Equipment." Address 207 East Ohio Street, Chicago, Illinois.

(3) Underwriters' Laboratories, Inc., Subject 207, "Standard for Unit Refrigerating Systems." Address 207 East Ohio Street, Chicago, Illinois.

(4) Underwriters' Laboratories Report MH2375 entitled, "The Comparative Life, Fire, and Explosion Hazards of Common Refrigerants." Supplies of this publication are exhausted at the Underwriters' Laboratories, but may be consulted in most public libraries in the United States. Reprints have been made by Kinetic Chemicals, Inc., Tenth and Market Streets, Wilmington, Delaware, and are available at $1.00 each.

It is often hard to compare values and capacity of the equipment offered and so it is well to provide that the contractor shall express his rating according to the following methods:

(1) "Standard Method of Rating and Testing Mechanical Condensing Units"—Price 15¢.

(2) "Standard Method of Rating and Testing Air Conditioning Equipment"—Price 20¢.

These standards are obtainable from the American Society of Refrigerating Engineers, 37 West 39th Street, New York City.

An example of concise yet comprehensive specification formulation that everyone should have may be obtained for 5¢ from the Superintendent of Documents, Government Printing Office, Washington, D. C. It is "Federal Specification for Air-Conditioning Units (Room-Coolers); Electric-Motor-Driven, Portable," 00-A-361 of July 23, 1938.

By following these rules you avoid any possibility of penalty to your client in insurance rates and promote safety of life and property. The "Freon"* refrigerants meet the requirements of these specifications.

KINETIC

FREON

REG. U. S. PAT. OFF.

safe refrigerants

*"Freon" is Kinetic's registered trade mark for its fluorine refrigerants.

KINETIC CHEMICALS, INC., TENTH & MARKET STREETS, WILMINGTON, DELAWARE

Commercial Sales Ideas

Customers Pay For New Equipment With Actual Savings In Operating Costs

By T. T. Quinn

PITTSFIELD, Mass.—Carrying the "proof of profits" story to its highest degree—letting the customer make payments on his new equipment out of actual money saved in operating costs—has opened the way to commercial refrigeration sales for Way Engineering Co., Carrier dealer, reports George Cooper.

The 24-hour service which the company offers has been a big help in getting business, but Mr. Cooper avers that the sales-clincher of sales-clinchers has been the dollars-and-cents offer of allowing the customer to buy his new equipment out of the money it puts him ahead as compared with the old.

As an example of the "profit selling" type of sales work done by the company, take the Deluxe Grill in Pittsfield, in which a 1-hp. and 1½-hp. compressor are now in service.

The equipment serves a four-beer and one-water tap Temprite system, the back-bar compartment, an 84-cu. ft. reach-in unit in the basement, and an 10 x 8 x 7½ pre-cooler.

The system was sold on the understanding that the owner could make his monthly payments out of the money he saved over his previous installation, an ice job. Here are the results:

With ice, cost of the system was $70 a month, and the owner was getting $19 out of a half-keg of beer.

With electric refrigeration, his operating cost was cut to an average of $15 a month, and he gets $21.50 per half-keg. This means a saving of $55 a month on operation, and a gain of $2.50 per half-keg on beer—much more than enough to meet the monthly payments on the equipment.

On another job, in the Busy Bee Restaurant, the company gained profit figures bolstering its claim as to the advantage of a beer pre-cooler. The owner had been using a cellar, in which average temperature was 70°, and from which the beer was piped to the dispenser.

With a pre-cooler 10 x 6 x 6½ feet in size, served by a ¾-hp. Carrier unit, the owner was able to show average savings of $35 a month, and at the same time draw more glasses of beer from the 16 half-kegs he was serving a week.

"You can't over-estimate the value of a good service department, in commercial selling," Mr. Cooper says, "Fully 80% of our new-sale leads come to us through that department.

The company employs six service men, and guarantees "no shut-down" for customers, no matter how serious their repair problems might be.

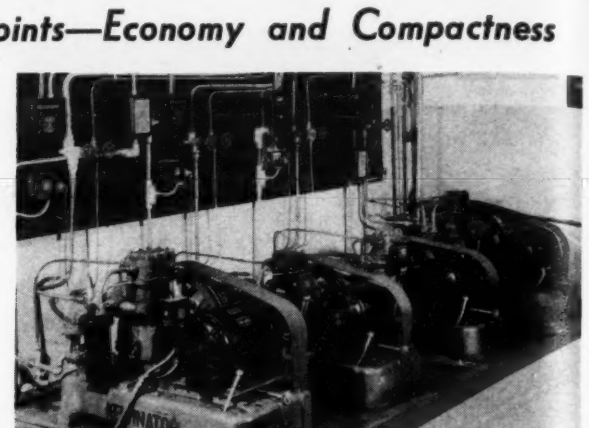
When a job breaks down, the company supplies equipment to handle the refrigeration job until the customer's own equipment is put back in running condition. Best of the replacement merchandise which the company takes in is used for this service, Mr. Cooper says.

The company operates a most complete metal-working and machine shop, in which it handles all its own work as well as that for customers throughout Pittsfield and vicinity. Special men operate this department, which is separate from the company's refrigeration business as such.

If equipment for which there is no replacement substitute at hand (such as ammonia equipment) should fail, emergency measures are resorted to. In such cases, the customer's case is iced until normal service can be resumed.

Mr. Cooper recalls one such incident in which an ammonia job broke down early one morning. "We iced the case, and had the equipment back running by noon," he says.

Two Strong Commercial Selling Points—Economy and Compactness



These "before and after" views of the machine room of the dairy products department of Zion Industries, Zion, Ill., tell their own story of the advantages of replacing out-moded machinery with modern equipment. The old machine room, at left, occupied 313 sq. ft. of floor space; the four Kelvinator units at right take up but 60 sq. ft. Servicing is easier, and the monthly power bill has been cut in half.

Early Installations In Texas Now Make Market For Replacements Important

SAN ANTONIO, Tex. — "Selling commercial refrigeration in Texas means wearing a five-sided hat," says R. C. Agnew, commercial refrigeration manager for the Straus-Frank Co., local Frigidaire distributor.

By this, Mr. Agnew does not mean that it is necessary to appear every day in the year in a 10-gallon sombrero—but that the successful commercial sales manager must be engineer, salesman, supervisor, wholesale man, and manager—all at once.

Coverage of 57 counties in southwest Texas is obtained by selling all commercial equipment at wholesale, Mr. Agnew relates. Salesmen for the Straus-Frank Co. must travel a territory measuring 500 miles north and south by almost an equal distance east and west to contact the 20 commercial dealers served by the company. Package commercial equipment is also sold through 70 household refrigerator dealers in the territory.

One of the most important activities of the company at present is replacing equipment which was installed in the San Antonio area prior to 1926, Mr. Agnew reports.

"Because of the fact that refrigeration is needed here 12 months of the year, and because ice has always been high in price, this country presented one of the best early markets for commercial refrigeration," Mr. Agnew states.

LEADS FROM SERVICE

"We have been able to maintain excellent service on Frigidaire equipment all over the territory for many years, and as the equipment in service wears out, we are naturally given the first chance to replace it with modern machines. Much of the remote equipment in service is being replaced with "package" refrigeration."

According to Mr. Agnew, many customers have been doing business with Straus-Frank for from eight to 12 years, and the present success of the company has been built on the service rendered these customers over a period of years.

Koch display cases are sold by the Straus-Frank Co. as "package items," complete with Frigidaire compressor and coil. Prices quoted to dealers on this equipment include the entire "package," which includes the display or reach-in refrigerator and the correct size Frigidaire compressor for the climatic conditions and load characteristics encountered.

HANDLING OF ORDERS

When an order is received from a dealer for a "package" article, one copy of the order is sent to Koch Refrigerators at North Kansas City, and a second to the Frigidaire branch in the same city. On the basis of these specifications, a complete unit is assembled at the Koch factory, and then shipped direct to the dealer who placed the order.

The secret of selling commercial refrigeration, according to Mr. Agnew is to have enough dealers so that when each one sells "his grocer, his butcher, and his beer parlor," together with other business places in his town, the resulting business will represent a substantial volume.

"People in Texas like to buy from the people they know," Mr. Agnew said. "We feel that the dealer knows the business men in his own community better than we could ever know them, and is in a splendid position to get a good volume of commercial business.

"Five of our 20 commercial dealers maintain complete service departments and install their own refrigeration systems; the others make arrangements with independent service men to have the equipment they sell installed."

Promotion meetings and service schools are held at regular intervals for commercial dealers of the Straus-Frank Co. These schools were held last month at San Antonio, Corpus Christi, Austin, and Harlingen, Texas.

In addition to commercial refrigeration, the Straus-Frank Co. operates large household refrigeration, air-conditioning, and parts jobbing departments which serve southern Texas.

YOUR LETTERHEAD REQUEST WILL BRING THEM

THESE *New* CATALOGS . . .

WERE PLANNED TO MAKE YOUR JOB EASIER

To anyone in refrigeration or air conditioning, these new Henry Catalogs will be helpful. Their general design and arrangement make all essential information instantly available.

Catalog 84 pictures and describes the most complete line of Dryers, Strainers and large line Valves. The many exclusive features, characteristic of the Henry line, are described in complete detail.

Catalog 53 is devoted to Ammonia Valves and Forged Steel Fittings. You will be interested in the more compact design of Henry Valves, obtained without sacrifice of strength, and made possible only because of the use of Dy-Made Valve Bodies.

Inasmuch as the distribution of these catalogs is solely to the refrigeration and air conditioning industry, kindly use your letterhead in requesting your copies—also state which branch of the industry you serve.

HENRY VALVE COMPANY, 1001-19 N. Spaulding Ave., Chicago, Ill.

"I save time and money by looking in the Henry Catalogs first"

The Silver-Flash beer cooler is compact and has eye appeal. Low first cost, low cost operation. It's a money-maker. Write:

You can sell this new
SILVER-FLASH
Beer Cooler

Here's a chance to make extra sales, extra profits. A brand new type of direct draw cooler for draught beer. Efficient, economical, durable, inexpensive.

Distributors & Dealers Wanted

The Silver-Flash opens a new market for you. Thousands of taverns and restaurants are live prospects for this NO-COIL cooler today. It does the job. The price is right. You can sell it and make money. In five sizes to fit any installation. Write for complete information, prices and discounts.

SPECIALTIES DISTRIBUTING CO.
5840 Woodward Ave. Detroit, Mich.

'Romance of Beer' Story Convinces Both Owners & Bartenders, Orkil Men Say

HARTFORD, Conn. — Using the "romance of beer" story to create desire for better beer-cooling equipment among bartenders and tavern owners is the plan used successfully to promote sales of this type of equipment in its territory by Orkil Electric Co., General Electric distributor.

Two recent campaigns put on by Orkil in its territory have used this "romance of beer" story, worked out by Ernie Linderme, former commercial sales manager of the company and now partner with Gus Zercher in a dealership in Middletown, Conn.

In the first drive, the telling of the "romance" story, which covers the entire history of beer and brewing down through the ages and ties it to many important historical developments, was connected with an all-day demonstration of the G-E beer dispensing system, in which bartenders in each dealer's territory were permitted to draw beer themselves, to convince them of the unit's economy and dispensing ability.

Lists of tavern owners were obtained from local newspapers, and direct-mail promotion was used to interest them in the promotion plan. Dealers who arranged these all-day demonstrations were provided with a beer dispenser by Orkil on a loan basis.

In each case, at least one beer-cooler sale resulted from the demonstration. High-sales mark was reached at New Haven, where five coolers were sold as the result of a single showing.

One of the dealers, Doug Kahle of Milford, Mass., has equipped himself with a trailer unit which he travels throughout his territory to tell bartenders the beer-cooling story. Orkil's most recent promotion plan makes use of a trailer similar to this, loaned to dealers (complete with demonstration unit) under an arrangement similar to that used in the initial drive. This plan, however, permits individual demonstrations in each tavern-owner's place of business, rather than the group demonstrations initially used.

Individual mimeographed invitation pieces are made up by the distributor for each dealer conducting a demonstration, with emphasis on the "savings" story. Modern equipment, the tavern owners are told, will enable them to:

1. Serve better beer to more customers.

2. Serve more glasses from every half-barrel.

3. To save, right from the start, on both initial and operating costs as compared with old-fashioned methods.

"Five-minute" demonstrations are offered—but in most cases, the company finds, tavern owners and bartenders play around with the equipment for a much longer time.

'Made-To-Order' Cases Are Specialty of New England Co.

FALL RIVER, Mass.—Builder of "made-to-order" display cases, reach-in and walk-in refrigerators, dough retarder units, and custom-built refrigerators for large homes is John H. Witts, Jr., who started in as a manufacturer of ice cases and branched out into electric refrigeration.

The company covers the territory from Cape Cod as far north as Brockton, handling all orders on a direct-factory basis. Prospects are obtained through extensive mailings of circular materials, blotters, and other advertising matter.

While the company builds display cases and coolers in standard sizes, its specialty is building units for larger homes and similar uses on a custom-made basis. In business for 35 years, it is well known in the territory it serves.

Mr. Witts likes to illustrate his company's reputation among owners of the many large homes in the territory by telling about the order recently received, unsolicited, from Mr. Webster of the Stone & Webster Corp., holding company. This order, which came in by mail, was for a special refrigerator to be built for installation under a pantry china-cabinet.

Another outstanding job recently handled by the company was the installation of an all-porcelain reach-in unit in Tanglewood Hall, Falmouth, Mass.

Just produced by the company is a display refrigerator for the storage of cream bakery goods, which is expected to have a wide market, since legislation is under way in Massachusetts to require goods of this type to be kept under refrigeration.

Mr. Witts handles only the manufacture of the refrigerators, leaving service to selected companies in the various communities he serves. Installation of refrigeration equipment also is entrusted to reliable independent service firms. This policy has been adopted, Mr. Witts says, for the convenience of the purchaser in case any "trouble-shooting" work is required.

Refrigerator Will Serve Animals In Zoo

DALLAS, Tex.—Mechanical refrigeration entered the zoological field on a large scale here with installation of a $1,095 unit at the Marsalis Park Zoo.

The refrigerator, according to zoo officials, will materially cut operating expenses and improve the diets of animals demanding fresh fruits and vegetables. Meat for the carnivorous animals also will be kept better.

Fruits, vegetables, and meats will be purchased in larger quantities at distinct savings, offsetting within a relatively short period the financial outlay for the refrigerator.

Refrigerator Repair Service Opened In Los Angeles

LOS ANGELES—Refrigerator Repair Service has been opened at 10124 Firmona Ave. here as a refrigeration servicing organization.

Cambridge Firm Rents Bottle Coolers, Then Sells Water From Own Spring

CAMBRIDGE, Mass.—Manufacturing water coolers to rent—not sell—to offices, factories, and schools is the unusual business pursued by United Water Cooler Service, with headquarters here.

The company makes and rents both bottle and pressure-type water coolers. It owns its own fresh water spring, and sells this water to those of its bottle-cooler patrons who wish it, as well as to other users of this type of cooler. Pressure-type coolers put out on a rental basis by the company are of the sweet water bath type, with 10-gallon tanks.

All of New England is served by the company from its headquarters here, working in connection with a commercial towel and linen service which serves the same type of customers who use the water coolers. Some special solicitors also work on prospects for rental coolers.

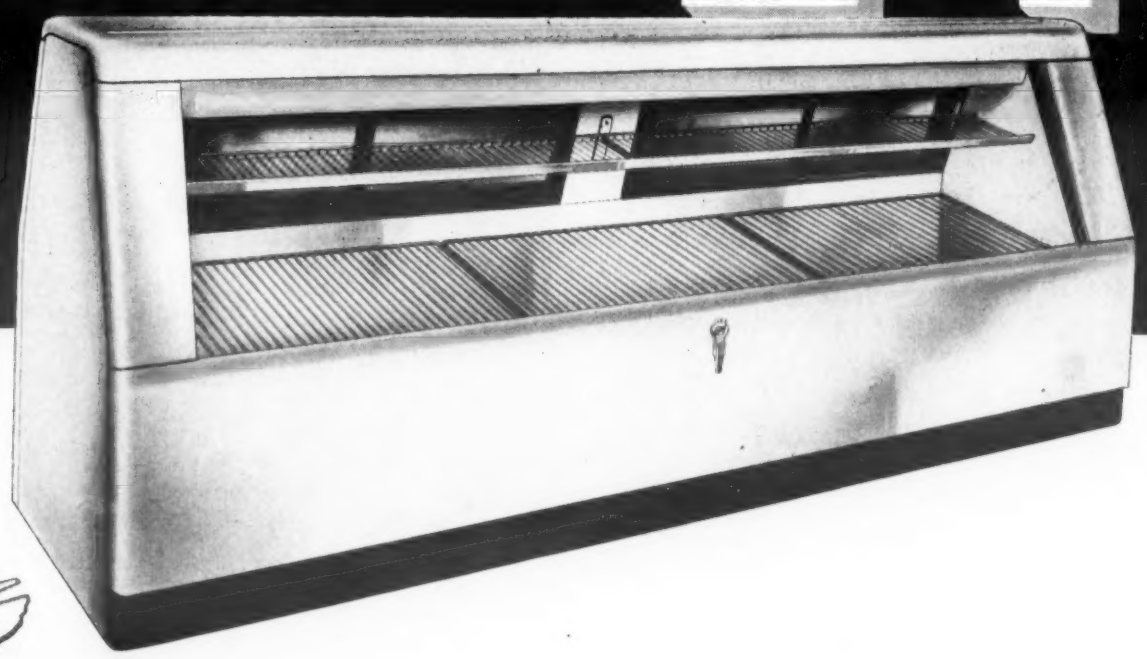
Most units made by the company are of the packaged type. All bottle-water coolers are of this type, and most pressure-type units as well. Some remote-type units also are made for use in larger systems.

Rental charges for the bottle-type cooler are standard—$3 a month for the unit, or $4 with four bottles of the company's spring water included. Charges on pressure-type units are a straight $4 a month.

Principal talking points used in obtaining new users are the economy and cleanliness of this type of service, as against old-fashioned ice water coolers. Also important with many users is the elimination of any necessity for servicing of the units. When a water cooler is put out on its rental plan, the company handles the complete service and inspection job, traveling service men throughout its territory on regular routes.

Increased production . . . most recent and modern equipment and manufacturing facilities make possible the new

SEEGER BUILT LOW PRICE SEEGER series 24



SEEGER announces the outstanding value in display cases . . . at the lowest price in Seeger history.

This event is the direct result of new and tremendously increased manufacturing facilities . . . new gigantic power presses, high powered automatic welders, bonderizing equipment, new electric porcelain ovens, Dulux baking ovens. This modern, high speed equipment has increased production and reduced manufacturing costs, resulting in the sensational Series 24 Cases, made in stock sizes 6, 8 and 10 ft.

These manufacturing facilities are housed within the Seeger plant, which has over 14½ acres of floor space devoted exclusively to the manufacture of display cases, refrigerator and commercial cabinets. America's largest exclusive manufacturer of refrigerator cabinets.

New specification folders for Series 24 Cases have been mailed. Did you get yours?

SEEGER REFRIGERATOR COMPANY

SAINT PAUL, MINNESOTA

BOSTON NEW YORK CHICAGO LOS ANGELES SAN FRANCISCO

Locker Storages

City Customers Buy Beef Slaughtered By Locker Plant & Become Renters

SOUTH BEND, Ind.—The Ullery Cold Storage locker plant here has developed a 500-locker business since it started here just a year ago through a combination of slaughtering its own beef and selling it to city customers.

Where the average plant caters to rural customers who provide their own meat and produce, 75% of the Ullery plant's patronage is made up of city residents.

The company searches the middlewest for top prime steers of 10 to 12 months of age, and then keeps them on its own farm, feeding the best fattening rations until the customers want them slaughtered. Since last summer, nothing but 4-H club steers have been purchased, most of them being winners at club shows.

The meat is sold to locker renters in quarters or more at the current wholesale price, and lockers are rented at $1 per month. Smaller cuts of meat are wrapped in cellophane for the customer. A delivery service is maintained, and wholesale produce purchases are made if the customer desires.

One of the best business getters, the company has found, is free suppers for prospective renters, using the plant's own beef and quick-frozen produce. The firm began quick-freezing service of fruits, berries, and vegetables last year and plans to expand this phase of the business considerably this season.

Community Locker Plant Is Planned For Draper, Utah

DRAPER, Utah—M. B. Andrus has been named to head a committee for drawing up articles of incorporation for the establishment of a community cold storage plant for this city. It is hoped that the plant will be ready for operation by the first of June.

Cold Storage Plant Started In Bowling Green, Ohio

BOWLING GREEN, Ohio—Union Service Co. of Columbus, operator of storage plants in several Ohio cities, has started construction on a cold storage plant here.

Year's Rent In Advance Helps Finance Locker Plants

_____ NO.
Write Name of Bank or Trust Company on Line Above

CITY _____ STATE _____ 19__
Write Where Bank is Located

PAY TO THE ORDER OF _____ $_____

_____ DOLLARS

This check is given in payment of annual locker rental. It is not to be cashed until the locker plant is in operation.

YORK PRODUCTS INCORPORATED
Distributors of York Ice Machinery Corporation
210 Court Ave. Des Moines, Iowa

As an aid to prospective operators, York Products Co. has prepared these checks, which, when signed by patrons-to-be, enable the operator to raise sufficient capital to construct the plant.

• • •

Dealer Assists Prospective Locker Operators In Lining Up 'Bonded' Patrons By Checks

DES MOINES, Iowa—Many a locker plant installation has to be "sold" by getting someone into the locker plant business, and Carl Muench of York Products Co. here has developed a plan for getting a prospective locker plant operator into the business which seems to be pretty near fool-proof.

Essence of the plan is for the prospective locker plant operator to line up a number of patrons before the plant is built.

The patrons-to-be bond their promise to use the locker plant facilities by making out a check for their first year's rental, **the check not to be cashed until the plant is in operation.**

York Products Co. enters the picture by supplying these checks (see reproduction on this page) and explaining the plan to the man who has evidenced an interest, or who might be interested, in building a plant.

If enough prospective patrons make out one of these checks, the operator generally can raise the capital needed to start such a plant, and make a payment on the equipment which is to be installed.

York Products keeps itself tied into the picture by having its name on the check.

Validity of the deferred payment arrangement on the check has never been questioned, declares Mr. Muench.

According to Mr. Muench, the ready acceptance given to the locker idea by rural residents makes it a "cinch" business proposition for any operator, **provided** he is a custom butcher himself, or has a custom butcher working for him. But the butchering is the essential part of the locker plant operation, he claims.

R. E. A. Is Planning Entry Into Locker Field

WASHINGTON, D. C.—The long-deferred venture of Rural Electrification Administration into the locker plant field will be made shortly, according to official sources, with probably two or three dozen loans receiving approval at the outset.

Over 80 applications from organized cooperatives are on file now. They are greatly outnumbered by the inquiries which until recently merely went into a file for future reference. They are now being taken out and studied in preparation for the locker plant financing program. REA also has announced that further inquiries are invited.

Locker plant loans by REA were authorized by the Comptroller General several months ago. Action has been delayed pending a study of existing plants and their operation by REA chiefs and field men. The administration also has been waiting upon the completion of an REA financed plant at Piqua, Ohio, which will serve as a working model in planning future plants.

The Piqua plant, which is nearing completion, contains a lard rendering room, a chilling unit, and a meat-cutting room, and some experimentation will be made with vegetable refrigeration.

The locker plant program is but one item in a somewhat broader project which REA is reported to be considering in the food processing field.

Theme of the proposed program, according to REA sources, will be: "Every County To Feed Itself." Co-operatives will be urged to organize community food processing plants, including such units as baby chick hatcheries, feed grinding, vegetable and fruit storage, and other operations adapted to the locality.

The first project of this kind is now being considered in one of the southern states, an REA spokesman declared.

It is pointed out that such an undertaking as a chick hatchery would not only build up the load through use of electric incubators, but the farmer would require a brooder to protect his chicks after bringing them home. Each one of the community plants would have a refrigerating unit.

City Folk Big Users of Texas Locker Plant

CARROLLTON, Tex.—Texas' first locker storage plant is located in the country—but more than a third of its customers are city folk, coming from Dallas, 15 miles away, to use its facilities for the storage of fish and game as well as the usual varieties of meats.

So says T. G. Kelley, owner of the plant, which is operated in connection with The Country Store here. A 180-locker system, the plant is equipped with Kelvinator refrigeration, sold by Air-Rite Corp. of Dallas, and uses lockers made by Lincoln Appliance Co., Lincoln, Neb.

KELVINATOR UNITS USED

Two Kelvinator air-cooled "Freon" condensing units provide refrigeration for the plant. A 5-hp. model T-6500 unit with remote condenser is used for the sugar-curing room, chill room, aging room, and locker room. A 3-hp. model T-6300 unit takes care of the quick-freeze room. The installation is so arranged that, in case of the failure of either unit, the other compressor can be transferred to the system normally served by the idle unit.

In the sugar-curing room, which is held at 40° F., ham and bacon may be cured for six weeks at a cost to the customer of 1 cent a pound in addition to the regular charge for butchering and storing.

The chill room, where the fresh meat is first placed, is kept at a temperature of 35° to 38° F., and is 6 feet wide by 12 feet long with a 12-foot ceiling.

AGING ROOM

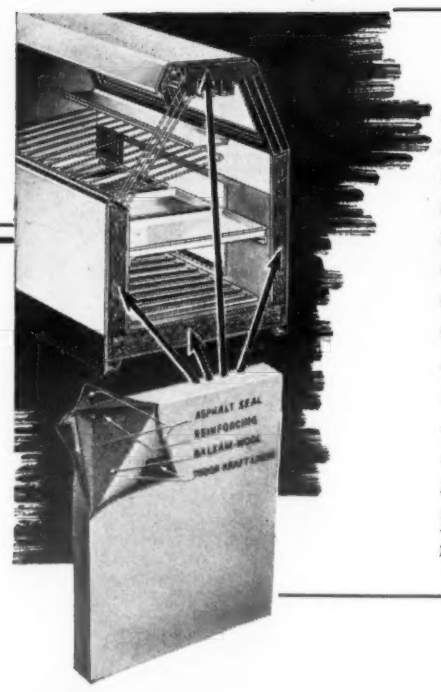
The aging room, kept at the same temperature as the chill room, is separated from it so that the introduction of a large quantity of warm meat into the chill room will not lower the temperature in the aging room and cause slime to appear on the meat being aged. Separation of the two room also prevents odors from the new meat affecting the meat in the aging room. In this room veal and pork are stored about a week, and beef from three to four weeks, in order to improve the flavor and texture.

After the meat is cut up and wrapped in a special, colored wax paper to prevent dehydration and discoloration, the kind of meat is marked on the outside of the package for ready identification. The packages are then placed in the quick-freeze room between refrigerated shelves at a temperature of —15° for a period of 12 hours.

From the quick-freeze room the meat is taken to the locker room, which is maintained at a temperature of 10°. This room contains 180 lockers, and compressor capacity has been provided for an eventual expansion to 300. Frozen foods, dairy products, poultry, venison, and other foods also are stored.

The coils in all five rooms are made from bare iron pipe. Six inches of corkboard insulation is used for the walls of the rooms and 8 inches for the ceilings and floors.

HERE'S WHY OUTSTANDING REFRIGERATOR MANUFACTURERS HAVE FOR YEARS USED BALSAM-WOOL



At these vital points in refrigerated equipment, Balsam-Wool, sealed in a moisture-proof covering, is your assurance of continued operating economy for display cases...reach-in coolers . . . walk-in coolers . . . . . frozen food cases . . . beverage coolers . . . and whenever a superior insulation of proved permanence is required.

1 HIGH EFFICIENCY—Conductivity value—K—of .246 B.t.u. per hour per square foot per degree per 1" thickness, as tested by impartial authorities.

2 ODORLESS AND SANITARY — The basic fiber used in Balsam-Wool is prepared by special processing which renders the material absolutely sterile.

3 NON-SETTLING — Balsam-Wool is naturally resilient, will not settle during the life of the refrigerated equipment in service.

4 MOISTURE-PROOF — Balsam-Wool is adequately protected in moisture-proof containers, thus maintaining its high efficiency.

5 PERMANENT—Continued use in the refrigeration field is further proof that Balsam-Wool maintains its desirable characteristics after years of service.

6 ECONOMICAL—Balsam-Wool insulation reduces operating cost of refrigerated equipment and continues to render economical service to the ultimate user.

Complete information yours on request—write for it.

WOOD CONVERSION COMPANY
Refrigeration Sales Division
360 North Michigan Avenue, CHICAGO, ILLINOIS
St. Paul, Minn. New York, N.Y.

BALSAM-WOOL
SEALED INSULATION SLABS
PRODUCT OF WEYERHAEUSER

Locker Storages

College Professor Who Is Advisor To Iowa's Storages Gives Psychological Reasons For Success of Locker Idea

By Phil B. Redeker

AMES, Iowa — Locker storage plants need not fear the fate of a fad or a passing fancy. They're here to stay, declares Prof. Fred J. Beard of Iowa State College, who is probably as close to the locker storage field as any single individual, and the reason why they're here to stay, he says, is pretty much psychological —the patron thinks he's getting something for nothing and he has the satisfaction of always having a full larder, from which he can live as well as he choses. And eventually the going to the locker plant becomes a habit.

COUNSELS OPERATORS AND PATRONS

Prof. Beard is a sort of "father confessor" to the locker storage business in Iowa. He serves in an advisory capacity to builders, operators, and patrons of locker plants. So well is he known in this work that locker plant operators, when something goes wrong, get hold of him by long distance telephone, and he can generally settle their difficulties by phone. He talks to Iowa farmers over the radio on how locker plants function, and how to make the best use of them.

"It's the psychology of the full larder or in this case, if you please, the full locker," Prof. Beard stated, in explaining why he believes the refrigerated locker idea will remain and grow.

"Let's draw a picture of how this works.

'THE FOOD IS ALL HIS'

"A farmer has livestock which has fattened up. He kills some of it and it is butchered and processed and put in the locker.

"Then comes time for the farmer to come to the locker plant for his week-end provisions. He stands in front of the locker and smiles—the food in there is all his. Futhermore, (and this is important from the psychological angle) **he pays nothing for it when he gets it.**

"Certainly he pays a flat rental charge, and pays up every so often for the processing charges. But he doesn't pay as **frequently** as he does when buying the meat at retail, and consequently he isn't so conscious of it.

PROFIT TO THE USER

"There sticks in his mind too, the thought that he is really profiting in a fairly large way by using the locker plant. He knows that he is getting more meat out of his livestock, all things considered, by butchering it and putting it in a locker, than he would by selling the particular piece of livestock in question, and using that money to buy meat from a retailer.

"Actually the saving may not be as great as he thinks it is, for the reason that a full locker encourages him to live better. He may go to his locker to get a roast for the week-end. But by the time he gets through looking the packages over, he's collected a steak for the Sunday dinner, in place of the leftover roast originally intended for the meal.

"But both he and his family, who, like many another farm family, have fared none too well in its meat diet, enjoy this better living at probably a slightly lower cost."

MISMANAGEMENT CAUSES FAILURES

All the evidence indicates that the only failures in locker storage plants have been traced to mismanagement. Prof. Beard and some colleagues made a study of more than 200 locker plants late last year, and found better than 75% of the total capacity of these plants rented, and no failures reported.

Indicative of the acceptance of locker storage idea in Iowa, at least, is the story of a pretty big plant in one of the larger cities that spoiled its entire stock in the early days of its operation when the operator, not understanding any too well the fundamentals of refrigeration, left the doors to the various rooms open a good share of the time.

CONFIDENCE UNHARMED

He explained that the installer of refrigeration equipment had told him the system was controlled automatically "to keep the desired temperatures under any conditions." But the "any conditions," of course, did not mean leaving the doors open.

The operator paid off the patrons for their spoiled meat, and the public's confidence in locker plants apparently was not disturbed one whit, and today the plant is operating quite successfully.

Failure to take into consideration several important factors will, however, endanger the full success of a plant, Prof. Beard declared.

LOCATION OF PLANT

In the rural areas, location of a plant should be determined on the basis of whether or not it's a trading center, says Prof. Beard. This is a much more important factor than size of city in which it is located, or its convenience to the customer from the standpoint of proximity to his home.

He cited instances of patrons who drive right through a nearby town that has a locker plant, to go to a trading center eight or 10 miles beyond it. The farmer likes to do all his buying in one locality, Prof. Beard explains.

The operator of a plant must know the rudiments of good business procedure and practice. And either he, or some one he employs, must be a good custom butcher. Mere superficial knowledge of butchering operations, such as might have been gained from a boyhood on the farm, is not enough, Prof. Beard declares.

SEPARATE BUSINESS

The locker plant business must be operated as a separate business to be fully successful, Prof. Beard insists. Perhaps the plant was started and is an adjunct to another business, but it will need separate management, and perhaps separate employes, to be entirely satisfactory from both the standpoint of the patrons and of the operator's profits.

Reason why some of the creameries had their troubles with locker storages built in conjunction with the creamery operation was that they failed to keep the two divisions separate, Prof. Beard declares.

125-Locker Plant In Town Of 500 Population Is Filled Completely

HUXLEY, Iowa — What Prof. Beard stated about the acceptance of refrigerated locker plants is demonstrated in the history of the co-operative plant in this village, the population of which does not approximate 500 people.

The plant is pretty small, having only 125 lockers. Ira Hendrickson, proprietor of the food store which adjoins the plant and manager of the plant, thinks he's going to be forced to expand pretty soon. All the lockers are filled, and there is an overflow in the aisles which is being stored in fruit shipping crates and baskets.

Nearly 100 persons subscribed to the cooperative plan to build this plant, each share selling at $10.

These subscribers share in any dividends which may be declared at the end of the year, such dividends apparently being determined on a basis prescribed by the Iowa law governing cooperatives.

Processing charges are 1 cent per lb., plus 1 cent per lb. for grinding. At the end of 1938, after eight months of operation, the shareholders got a 23% dividend on all charges they had paid for work done. In other words, for every $1 spent for the processing and grinding of their products, they got 23 cents back. This indicates the profit possibilities of locker storage plants.

The plant's refrigeration is furnished by a single Frigidaire compressor, operating a full-flooded "Freon" system. The unit has an oil separator and an equalizer tank.

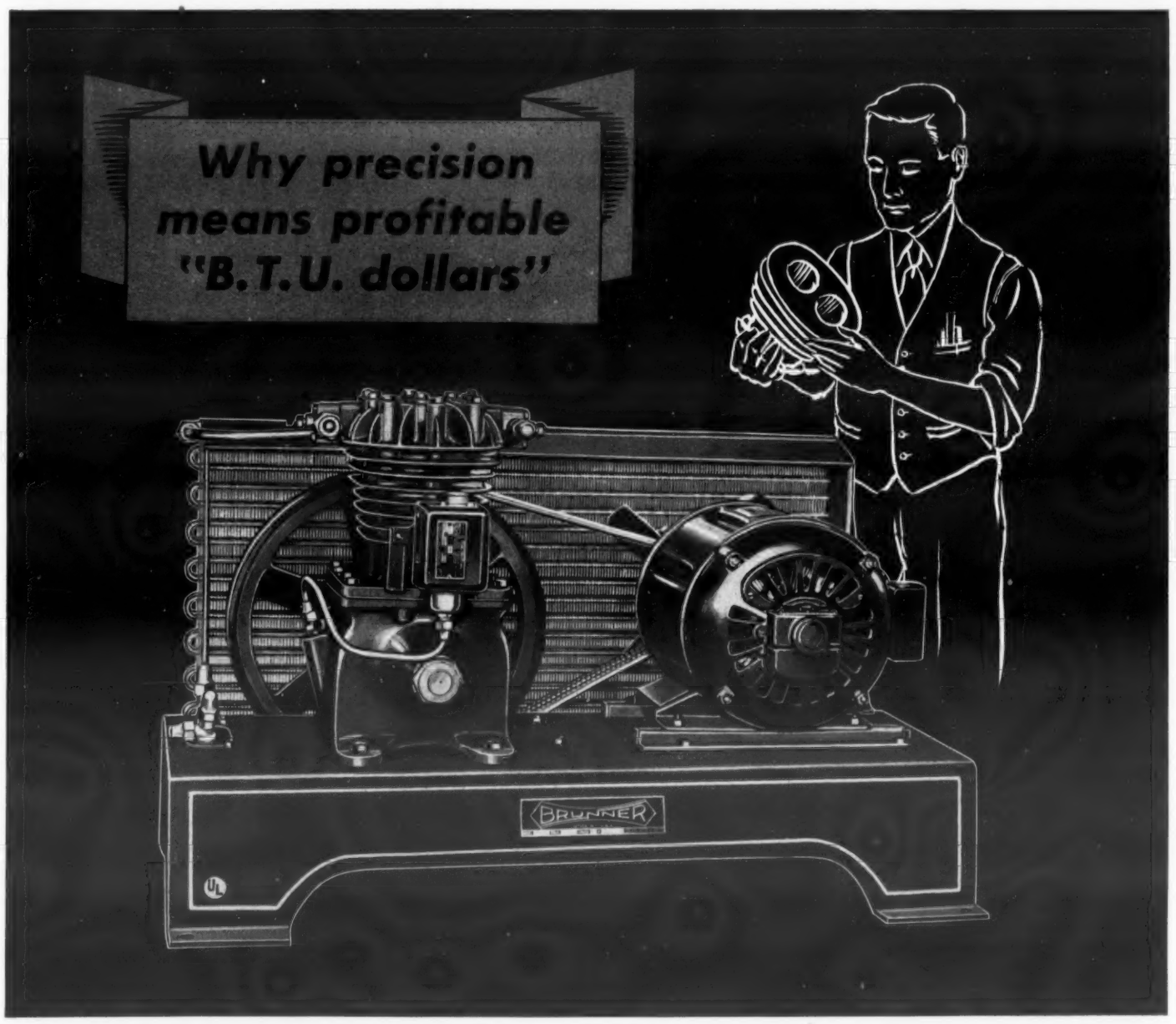
A blower unit is used in the chill room, pipe-coil shelves in the freezer room (kept at —8° F.) and plate-type overhead coils in the locker room. All-steel lockers of the latest design are used. The refrigerating system is also tapped to supply the display case in the store.

New Locker Plant Planned For Seiling, Okla.

SEILING, Okla.—The Railways Ice Co. will start construction of a new building here late this month to house a cold storage locker plant, according to Roy Kinney, manager. It is estimated that the cost will reach $15,000.

Adaskin-Tilley Furniture Takes on G-E Line

HOLYOKE, Mass.—Adaskin-Tilley Furniture Co. here has recently taken on the General Electric line of refrigerators and other appliances. William Wolfson is owner of the company.



Every Brunner Unit is tested for Underwriters' Laboratories Approval and Carries the U. L. Seal

● BRUNNER precision plays a dual role in reducing the cost of commercial refrigeration . . . First, there's the contribution of precision to performance. All vital parts throughout the Brunner construction are machined to exact fit—cylinders, pistons, bearings, valves. The practical results are markedly reduced friction and wear, minimum losses due to leakage, and greater all-round operating efficiency. And as an added economy, Brunner precision means perfect interchangeability of parts and thus reduced maintenance expense should replacements ever be needed . . . In the manufacturing process, too, Brunner precision promotes economy—the economy of lower first cost. For precision requires simplification and compactness of design, and this demands more efficient manufacture. A more favorable selling price is the natural result . . . So whatever your refrigerating or air conditioning problem, save "B. T. U. dollars" through Brunner precision. Air and water cooled units from ¼ H. P. to 15 H. P. Catalog on request. Brunner Manufacturing Company, Utica, N. Y., U. S. A.

The Symbol of BRUNNER Dependability

Commercial Sales Ideas

Small Towns That Competitors Overlook Produce Paying Prospects For Ohio Dealer

By Robert Price

LIMA, Ohio — Picking the spots overlooked by competitors who "don't think it's worth the trouble" has produced paying prospects for Jacobs Appliance Sales here. Canvassing the outlying fringe of his territory, R. H. Jacobs, commercial distributor and appliance dealer, has turned up a business bonanza in small communities, where, he says, "business is good, and price cutting is out."

Customers in these smaller places are often passed up, he believes, because of the hot competitive race for business in the city areas. "Of course," he says, "we get our share of the business here in town, but by that extra effort of stepping out where others stop we are adding materially to our total sales in commercial lines.

PRICES ARE MAINTAINED

"Another good feature of this business is the fact that prices can be maintained, and competitive price cutting, which sometimes cuts deep into net profits, is almost entirely eliminated."

Like every good angle of selling, the art of spotting prospects a little off the beaten sales track takes a special technique. Full coverage of the entire territory, and an alert sales force offering good equipment and excellent service to every customer, will produce satisfied customers in totally unlooked for places, reasons this distributor-dealer.

NO 'DEMONSTRATION' INSTALLATIONS

Another special rule Mr. Jacobs sets for the firm is that of no installations on a "demonstration" basis. Many salesmen will take the easiest way of introducing equipment, he believes, and will concentrate on demonstrations rather than sales.

"This practice," he continues, "is really only a poor substitute for outright good selling. A large percentage of customers use the equipment a while, and then turn it back for one reason or another. The company is then left with used equipment which usually must be sold at a reduction in price and a subsequent reduction in profit.

"Our method has always been to sell good equipment, give first class service, or, in other words, let the jobs that we offer for sale produce satisfied customers from the very first.

"It may be the easier way to allow the prospect to 'test out' what he is buying, but it certainly does not make for greater total sales, nor does it produce salesmen who are willing to take the hardest way to make the best sales. No, sir, anyone who has faith in the thing he's selling and in his own ability doesn't have to offer demonstrations."

SERVICE MEN GET PROSPECTS

All of the persons selling for this firm work along these lines. In addition to Mr. Jacobs and one other regular salesman, the service men are trained to spot prospects and to do a selling job. The service men have brought in many sales, and believe it or not, they are not paid a commission for this somewhat "extra-curricular activity."

They believe that they are benefitting their own position by increasing the number of installations. They are more than eager to make a sale, for they are convinced that helping to sell makes good business—and they're always on the lookout to keep business good for the firm, and so for themselves.

AIR CONDITIONING TOO

One of the star salesmen of the firm is C. H. "Chuck" Stager, who has been with the company for more than twelve years. Mr. Jacobs points to Chuck's record as a good example of the successful serviceman-salesman. These men not only sell the commercial jobs, but have even done selling work in the air-conditioning line, which the company also carries. They have recently made what is described as the largest single air-conditioning installation in Lima at the Lima Telephone & Telegraph Co.

Manage Dealership

Mr. & Mrs. R. H. Jacobs divide management of their Lima, Ohio outlet. Mrs. Jacobs runs the appliance store; Mr. Jacobs, the commercial end.

WATER COOLER SALES

One of his favorite places for making water cooler sales, Mr. Jacobs relates, is newspaper offices, which he claims are "pushovers if you go at it right." This probably dates back to the time when Mr. Jacobs and "Zeke" Carrithers, now advertising manager of the NEWS, joined forces to make a record sale of two water coolers to a hard-boiled publisher.

They approached the prospect and asked him how much ice he was using to cool the water at the time. He barked that he didn't know, but that electric coolers were "too expensive." They managed to learn the amount of the ice bill, however, and by showing the saving were ordered to rush the two coolers, "and the quicker the better."

That, according to Mr. Jacobs, is the way sales are made from what seems to be certain failure. Just keep looking in the places where the others fail and you are bound to make a surprising number of sales. Always remembering that satisfied customers bring more if every job is installed with the promise of perfect performance as specified.

WIFE MANAGES STORE

The appliance store is managed by Mrs. Jacobs. She shares her husband's ideas on the conduct of the business in general, and has her own special touches to add to the retail end of the business. On advertising they have put their heads together and agreed on a combined newspaper and radio schedule.

In itself, that's not so different, but here crops out a little more ingenuity. For, you see, at Lima are some of the large plants of Westinghouse. As these plants employ hundreds of people, the advertising of this store reads—"We appreciate the patronage of Westinghouse employes, so we buy Westinghouse products." The store is one of the few in the section to carry a full line of Westinghouse products and the "mutual benefit" touch to the advertising copy has produced excellent returns.

OTHER LINES HANDLED

In addition to Westinghouse products, Koch refrigerators and Anchor coal stokers are handled by the store.

This dealer believes in "being a little different, looking a little further, cashing in where others give up." And his 18 years of progress, from a tire and battery shop with appliances on the side to his present modern store, must mean he's got something there.

Three New Distributors For Lipman Appointed

BELOIT, Wis.—Three new distributors of Lipman refrigeration equipment have been announced by General Refrigeration Sales Corp., manufacturer of the Lipman line. They are: Jack Deeds Refrigeration Service, Salina, Kan.; Peoples Plumbing & Heating Co., Lamar, Colo.; and E. G. & William B. Hall, Pueblo, Colo.

Cost & Savings Figures In 'Black and White' Convince Prospects

By Phil B. Redeker

MOLINE, Ill.—"Get the figures down in black and white."

That's what the commercial refrigeration salesman must do today to be convincing to a prospect, says Charles Esplin of the commercial refrigeration and air-conditioning department of Moline Consumers Co.

"A lot of conversation doesn't make much of an impression on the average food merchant or tavern owner," asserts Mr. Esplin, "but he'll look at some figures."

Just what does Mr. Esplin get down in black and white? Well, they're really very simple, just a couple of figures being used, as follows:

(1) Cost per day to operate present equipment .....

(Either ice or old mechanical units, figures based on prospect's actual bills.)

(2) Daily operating cost of equipment which salesman proposes to install .....

(Taken preferably from records of a similar installation.)

(3) Amount per day which prospect would have to invest to pay for the proposed new equipment.....

(Taken from cost of proposed installation estimated by salesman.)

"In most cases, the savings of Item No. 2 over Item No. 1 will be as great, if not greater, than Item No. 3," Mr. Esplin declares. "For example, take the installation of a Temprite beer cooler which will operate for about 15 cents a day as compared with an average cost of about $1.50 for an ice-cooled novelty box draft beer cooler. Such savings actually make money for the user besides paying for his new equipment."

Getting the figures down in black and white is one main step in landing commercial sales today, says Mr. Esplin. Another is taking the prospect to a satisfied user's place of business — especially a loquacious user, who likes to brag a bit about his new equipment.

"Usually all you have to do is to introduce the two men," says Mr. Esplin. "They talk each other's language, and, before you know it, the user has made the sale for you."

Investment In Ice Goes Down the Drain, Water Cooler Salesman Proves

KANSAS CITY, Mo.—"When ice melts, whatta yah got?—Nothing but water."

This is the "selling approach" used by G. O. Hall of the Electric Appliance Service Co. here in marketing G-E water coolers.

Mr. Hall reports that prospects agree that his argument is sound. When they buy ice month after month and watch it drip away, with nothing left to show for the investment, they can soon be made to realize that it is better to put the money in a mechanical water cooler.

Self-contained water cooler units are sold by Mr. Hall and his men on a "rental" purchase plan. The plan calls for payments of $7 per month for 48 months on a cooler selling for $310, including carrying charges and four-year service. At the end of this period, the owner continues to pay (theoretically at least) $1 per year on the cooler.

Formerly employed by the G-E product service division at Cleveland, Mr. Hall was later associated with the G-E Supply Co. of Kansas City, directly across the street from his place of business. Electric Appliance Service Co. was set up in 1936 to handle service work for G-E Supply Co., but in 1937 the organization began merchandising commercial equipment, and since that time service work has been taken over by G-E Supply Co.

Recently, Mr. Hall has been devoting his attention to the problem of an inexpensive method of handling and dispensing beer. In this connection he has developed a "direct draw tap rod and better cooler," which is used in connection with beer cooler cabinets containing water.

Principle of the device is to circulate water from the inside of the cabinet through a sleeve around the tap-rod, and thus cool the beer as it comes from the keg.

This cutaway shows two of the four cylinders in Servel's quiet, smooth "Q" compressor.

WHY 4 CYLINDERS?

Because they insure Smoother Operation . . . Steadier Flow of Refrigerant . . . Longer Life for Wearing Parts . . . Quieter Performance

When you first see one of Servel's new 4-cylinder refrigerating machines in operation, you'll scarcely believe that it's running.

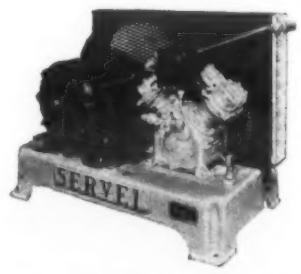
The new "Silver Fleet" models are so *quiet*, so *smooth*, so *vibrationless*, that they will completely change your notions about the necessity for noise in commercial refrigeration and air conditioning equipment.

Servel engineers have proved that a multiplicity of small cylinders, giving frequent but smaller power strokes, smooth out the power curve and eliminate the pulsating effects commonly associated with one or two cylinders.

Just as your 8-cylinder automobile gives smoother, quieter performance than the old 2-cylinder or 4-cylinder motorcars—so Servel's 4-cylinder refrigerating machines insure *better balancing* and *more even distribution of the load on wearing parts.*

Multi-cylinder compressors are not confined to a few of the larger machine units in Servel's "Silver Fleet" line. Instead, all models from ½ H.P. to 3 H.P. are equipped with 4-cylinder compressors.

If you have a commercial refrigeration or air conditioning problem requiring a silent, smooth machine unit, investigate Servel's "Silver Fleet." A request on your letterhead will bring a 72-page catalog and complete information. Write today!



Even Servel models as small as ½ H.P. are equipped with four cylinders to assure smoother operation and greater freedom from noise.

SERVEL, *Inc.*

Electric Refrigeration and Air Conditioning Division

EVANSVILLE, INDIANA

Two 'Pairs' of Commercial Equipment Give Michigan Distributor Good Hand

By Alfred Jones

DETROIT—Selling four complementary types of commercial refrigeration equipment in the entire state of Michigan is the successful business principle of George J. Hayes, head of All Metal Store Equipment Co. here.

Mr. Hayes is distributor for the complete line of commercial cabinets of Koch Refrigerators, is distributor for Brunner Mfg. Co.'s compressors, is also distributor of "Sweden Speed Freezer" counter-type ice cream makers manufactured by Sweden Speed Freezer Co., Seattle, and is just taking on the soda fountain line of Stanley Knight Corp., Chicago.

HAND-IN-HAND LINES

Koch cases and Brunner compressors go hand in hand, and Sweden Speed Freezers and Knight soda fountains likewise are "two of a kind," so that a customer or prospect for any one type of equipment naturally becomes a prospect for the "mate," Mr. Hayes said.

All Metal Store Equipment Co. has been distributor of Koch commercial cabinets in eastern Michigan for the past two years, doing all of the retail selling as well except in the larger towns where dealers have been franchised.

THREE SALESMEN EMPLOYED

For the other three refrigeration products, Mr. Hayes' firm has the whole state as its territory. Of course, the bulk of the commercial refrigeration business is in Detroit, so two of All Metal Store Equipment Co.'s three salesmen split the metropolitan market, and the other salesman covers the rest of the state.

The salesmen, all of whom do outside selling exclusively, work on a commission-drawing account basis. Mr. Hayes personally takes care of all business in the store.

"Our experience with the Koch line," declared Mr. Hayes, "has been very satisfactory. The equipment is very fine, and the line is complete, including various sizes of display cases, walk-in coolers, reach-in coolers, florist refrigerators, and all types of commercial cabinets.

COOPERATION FROM KOCH

"We get very good cooperation from the Koch company, and receive plenty of valuable printed matter to use as sales material. Twice a year the Koch company holds a sales contest for dealers, and our salesmen enter each contest.

"Whenever we receive a special order for a custom-built cabinet to fit the buyer's requirements, we send the customer's specifications to the Koch factory, and the engineers there design a case and submit drawings for the customer's approval.

"We buy our stock of cabinets direct from the Koch firm, who suggest a resale price on each line of equipment. With this price in mind, we then adjust our price to conform with competition here in Detroit, and also outstate with competitive prices."

Mr. Hayes said that the 10-foot display case is the best seller in the entire line and constitutes the bulk of commercial cabinet sales.

Prospects are discovered through personal calls by the salesmen, through response to direct mailings, and, to a great extent, from floor traffic, Mr. Hayes said.

WEEKLY SALES MEETING

"Every Saturday morning we have a sales meeting," Mr. Hayes continued. "We go over particular problems, discuss matters generally, review product details and prices, and prepare for the following week.

"Two of my salesmen have been with me for about three years each, and the other has been with me for about a year. They all know their work, and keep themselves informed on the product by reading company literature.

"We finance sales through the Commercial Credit Co. and the Union Investment Co. on two-year time payment plans. A minimum down payment of 20% is required. In the past five years, I've had to repossess only two installations.

"Of course, there is a constant trade-in problem, but we solve this by destroying most of the old cases we take in. The few really good cabinets that are traded in are reconditioned and placed on sale, but in general the used units are not worth putting back on the market.

"In 1938 we made about 100 installations of Koch equipment, and so far the 1939 sales are going much better than last year's.

"We have our own service department, operating under the name of Hayes Electric & Refrigerating Co. and conducted by two service men."

SAUSAGE STORE INSTALLATION

As distributor of Brunner compressors, Mr. Hayes sells the units along with the Koch cabinets, and also sells them separately for installation in other makes of commercial cabinets.

One job Mr. Hayes is particularly proud of is the installation he made for Conrad Sausage Co.'s modernistic new retail store on Grand River Ave. This market is "manned" entirely by girl clerks, Mr. Hayes said, and sells every type of sausage and similar form of meat produced. Mr. Hayes installed all of the display cases in Conrad's new store.

The Sweden Speed Freezer is looked on by Mr. Hayes as a particularly promising product. The unit is small and compact, designed for installation on top of a counter or soda fountain, and, he said, is about the only such small ice cream making unit known in the Detroit territory.

"I have been receiving scores of inquiries and requests about the Sweden Speed Freezer," Mr. Hayes declared, "as the result of a mailing we made of about 20,000 pamphlets and return cards.

"We had the pamphlets printed and mailed them out to a selected list of names, introducing the freezer, telling what it is and what it does, showing how it can become a profitable part of the prospect's business, and inviting the reader to fill out and return the card enclosed with the piece.

SEEKS APPROVAL OF FREEZER

"The return card stated, 'I would like to know more about the Sweden Speed Freezer!' and the prospect had the choice of checking one of two requests—to receive an illustrative descriptive folder, or to have a sales representative call on him.

"The percentage of returns on this mailing was surprisingly high, and we judge by this indication that the freezer will be a very good seller this summer."

Mr. Hayes explained that he has not made any installations of the freezers up to now because he is waiting for the Detroit board of health to sanction their use. There is a state law, he pointed out, which requires that ice cream be made under glass as a sanitary precaution.

The Sweden freezer, he went on, is much more sanitary than most ice cream making equipment now in use which complies with the law, and the board of health undoubtedly will approve the sale of the units.

"As soon as I receive the official permission," Mr. Hayes said, "I'll start installing the units and filling the orders and requests on hand."

Adapt Selling Tactics To Needs of Town, Dealer Advises

TROY, N. Y.—Adapting your commercial refrigeration selling tactics to the varying needs of the community you serve goes a long way toward keeping this part of your business at a steady level, regardless of business conditions, Gordon L. Hayes, Inc. here has found.

The Hayes organization found a new field for commercial equipment when Troy's storage warehouse closed a year or so ago. Food merchants need meat in a hurry, and they can't—or won't—make several trips a week to Albany, 15 miles away, to get it from a large storehouse or packing plant.

To meet this situation, Hayes began building, in its own cabinet shop special 1-ton capacity storage cases in which these meats, fowls, and similar products could be kept for long periods, without necessity for the merchant's traveling into Albany twice or three times a week to replenish his supplies.

Cases of this type are constructed by the company's own cabinet maker, and the complete job brings between $800 and $1,200 on the average, Mr. Hayes reports.

Additional business along this line also has been obtained from local restaurants and hotels, which are faced with a similar problem. Cases for installations of this type generally range in the 500 to 1,000-lb. class.

Temperatures in the cases are held between 0° and —20° to keep the meat and poultry in a frozen condition until it is needed. Good extra-profit possibilities can be found by the dealer alert enough to cash in on a local situation of this nature, Mr. Hayes says.

In addition to this special field, the company also handles standard commercial equipment. Demand for this equipment has held steady, without respect to the fluctuations in the household refrigerator market, the company has found. Biggest sales volume has been in the display case field. Household refrigerator men for the company are "not allowed to touch" commercial.

Coffee-Cake Better After Dough-Retarding

BATTLE CREEK, Mich. — When coffee-cake dough is kept in a dough-retarder refrigerator a lot longer than normal, what happens? It bakes up better than ever, Bernard Godde, owner of Godde's Pastry Shop here, has found.

The other day, J. H. Coolidge of the Sherer-Gillett Co., one of whose "Retardo" units are used in the bakery, got a hurry-up call from Mr. Godde. Visioning possible service trouble, Mr. Coolidge hurried over to Battle Creek, only to be asked to sample some coffee-cake which Mr. Godde termed the finest that had ever left his ovens.

He could only account for it by the more than normal length of time the dough had been retarded. Through oversight, it hadn't been baked off at the scheduled time—and instead of being refrigerated for from 24 to 36 hours, this batch had been cooled for more than ninety-six hours.

TEMPRITE—"OILRITE"

Temprite is happy to announce that it has purchased the "Oilrite" Division of the Riley Engineering Corporation and that henceforth the complete line of "Oilrite" Oil Separators, ranging in capacity from ⅛ H.P. to 50 Tons, will be manufactured and sold exclusively by Temprite.

Through Temprite's increased manufacturing facilities, "Oilrite" Separators, in all sizes, will now be available to the entire refrigeration industry.

Temprite alone, by means of "Oilrite", is able to assure you of that perfect oil control through scientific oil separation together with automatic oil return which is essential to the utmost in refrigeration system performance.

"OILRITE" ADVANTAGES:

1. "Oilrite" Separator separates and collects the oil from the hot oil-laden discharge gases and returns the oil automatically to the compressor crank case.

2. "Oilrite" Separator provides a constant oil level in the crank case at all times, eliminating worn seals, scored pins and cylinders.

3. "Oilrite" Separator keeps oil out of condenser, liquid receiver, liquid and suction lines, refrigerant metering valve and evaporators. Heat transfer rate is more rapid in oil free condensers and evaporators.

4. "Oilrite" Separator allows refrigerant metering valves to operate at highest efficiency because it prevents oil from collecting at the metering device.

5. "Oilrite" Separator allows refrigerants to vaporize at their true boiling points.

6. "Oilrite" Separator prevents dirt, scale, core sand, and hard and soft carbon entrained in oil from reaching and plugging the refrigerant metering device.

7. "Oilrite" Separator allows reduced power costs and increased capacities.

We believe that we have, in our own factory, improved facilities for the production of oil separators which will result in the making of an even better "Oilrite" if such a thing is possible.

John Wyllie, Jr.
V. P. & Gen. Mgr.

8. "Oilrite" Separator will allow capacities to be increased up to 20%.

9. "Oilrite" Separator will provide lower temperatures without increasing operating time.

10. "Oilrite" Separator will increase the efficiency of all commercial installations far beyond the initial cost of installation. They pay a daily dividend.

11. All "Oilrite" Separators are insulated to prevent condensation of refrigerant gases passing through the separator shell.

"Oilrite" presents a sales opportunity: Low temperature installations . . . Cold Storage Lockers . . . Air Conditioning Equipment . . . Beverage Coolers . . . Ice Cream Cabinets . . . Soda Fountains . . . Cooling equipment of all kinds . . . will be improved by installation of an "Oilrite." There are thousands of commercial installations in the field today that need it. The Temprite adaptor block makes installation easy.

Write for descriptive bulletin

TEMPRITE PRODUCTS CORPORATION • 55 Piquette, Detroit, Mich.

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Changing Picture In Commercial Refrigeration

NEMA figures on manufacturers' sales of commercial refrigerating units no longer give a fair idea of the size of this branch of the refrigeration industry.

Three or four newcomers among the commercial refrigeration manufacturers have, in the last two or three years, done so much business that the true growth of commercial refrigeration hasn't been reflected in the statistics issued by the National Electrical Manufacturers Association.

These newcomers have utilized new sources of distribution. They have also specialized in brand new types of consumer markets.

Importance of Jobber Recognized By Newcomers

One of the reasons why they have become important is that they early recognized the importance of the jobber in the refrigeration picture. Through the jobber they sold the independent service man, and the two together have moved thousands of compressors in the last couple of years.

Another reason for their move to the forefront is their assiduous cultivation of new fields. They have been in on the booming bottle cooler business. They have helped push counter freezer sales. They were in on the ground floor of the locker storage business. And so on.

At present, these newer elements have another "hot number" under their wing. They are selling bakers "dough-retarding" equipment. By the means of carefully held temperatures in well-type insulated boxes, bakers can now make up a whopping big batch of dough and hold it until needed. Thus they have been able to eliminate much of the nightwork which has made baking a rather unattractive profession. Formerly they had to continue baking until they had used up an entire batch of dough; but with these refrigerated "retarders," they can bake small quantities at a time.

Butchers Being Sold On Locker Systems

Also, in the locker storage field they have begun to invade the lair of the butchers. They show the latter how they are losing business to the locker people. They also point out some of the dissatisfaction which has arisen among customers of the latter: disputes over "switching" of foods in lockers having a master key, poorly frozen products, etc. They tell the butcher that this field is really open for a man with his community reputation. And they are beginning to sell him on making rather heavy investments in locker equipment.

The beauty of the jobber set-up is its flexibility. Qualified jobbers can go after any sort of business as fast as it arrives, and through their contacts with the trade, they are generally among the first to hear about it. They must beware of cut-price selling, however, lest they alienate other types of dealers and lose their parts business.

Regardless of who is selling commercial equipment—and it is true that the distribution picture is changing—reports from the field would indicate that it is a real business, and that no one in the refrigeration industry can well afford to neglect it.

For the future, it may hold the greatest possibilities of all the fields of refrigeration. For the present, it is a *profitable*, growing business.

Quick-Frozen Foods Aren't Displayed At Present

RAPID growth of quick-frozen foods distribution has led some observers to ask the question:

"What's happened to the display case?"

For decades it has been axiomatic that to sell food you have to show it to the customers. Following this axiom, commercial refrigerator makers invested thousands of dollars in experimenting on low-temperature display cases, attempting to develop an approved design. What happened to all this experimenting? Why aren't display cases being used for frozen foods?

R. E. Smithson, manager of Frigidaire's commercial sales division, answers the above questions as follows:

"Every day an increasing number of merchants who sell frosted foods are coming to realize the difference between products which lend themselves readily to open display and those which do not," states Mr. Smithson.

"Most frosted foods are packed in waxed cardboard cartons and other containers, which are designed for protection of the foods involved rather than ornate display.

"In such cases, it should always be borne in mind that there is a decided difference between foods packed away in sealed cartons and those which are displayed openly for the inspection of purchasers.

"A woman who purchases a piece of meat has a definite interest in seeing the actual meat itself before she makes her decision; whereas, in the case of frosted foods, she realizes that if they are frosted, they are of uniform quality and the merchandiser's problem is fundamentally one of properly keeping them in a frozen condition.

'Nothing Attractive About a Package'

"There is nothing particularly attractive to the eye about a package of frozen beans or peas which might, under special conditions, be displayed openly, whereas it is important that they be kept in proper condition up to the very moment of sale.

"We know, too, that light has a tendency to discolor or bleach most frozen foods, and in such cases, open display would not be advantageous.

"Frosted foods are largely in the same category as ice cream, and require approximately the same low temperatures for safe keeping. While, of course, there are differences in different brands of ice cream, yet, from the standpoint of the public, ice cream is generally recognized as a specific item of food and choices are made by brand names rather than by personal inspection before each purchase.

Ice Cream Experience Shows the Way

"Experience gained in the dispensing of ice cream has indicated that for most economical and practical results, a chest type cabinet, sturdily constructed and heavily insulated, is by far the best method. Glass display cases for packaged ice cream have been held to be impracticable, and the problem with frosted foods is an identical one to that of the keeping of ice cream.

"All grocers are familiar with the construction of meat cases, and all have seen a display case with the panes of glass 'steamed up' to such a degree that it was difficult for a customer to see what was in the case. This is a result of the seal around the glass not being tight enough to prevent air passage, allowing moisture to condense on the glass.

"Naturally, the colder it is inside the case, the greater is the tendency for the moisture to condense. Because of this condition, it would be necessary to use a series of possibly six or more glass panes to construct a cabinet that would provide the necessary temperatures for frosted food storage of from 0 to 10°.

Frosted Food Dealers Realize Difficulties

"Dealers in frosted foods realize these difficulties connected with display type cabinets, and these are undoubtedly some of the reasons why the change to chest-type cabinets has been so abrupt and decisive."

It might also be noted that use of the chest-type cabinet for quick-frozen foods has become so prevalent because that's the only type being offered dealers by General Foods (Birdseye). This organization, by far the largest in the field, leases chest-type boxes to retailers on a low-rate basis.

However, independent producers now beginning to come into the field may see an opportunity in this situation. If they can arrange for their products to be *put on exhibition* through the medium of low-temperature display cases, they may achieve a competitive advantage which would give them the toe-hold in the business that they seek.

For non-frozen perishables, of course, the refrigerated display case is indispensable.

They'll Do It Every Time . . . By Jimmie Hatlo

LETTERS

Why Overlook Soda Fountains?

Filtrine Mfg. Co.
51-53 Lexington Ave.
Brooklyn, N. Y.

Editor:

I notice that you are going to emphasize Commercial Refrigeration in your April 19 issue, and that your staff writers are collecting information which might be interesting and helpful to distributors and dealers.

I am aware that: distributors, dealers, and independent service men must constantly be on the lookout for ways and means to increase their billings to both new and old customers. New items to sell—new ways of selling old items—new applications for existing equipment, etc.

In the past three years the application of refrigeration to large and small bottling plants has been noticeably successful. Manufacturers of condensing units have issued elaborate literature and data to assist their field outlets in selling this market. Arguments have been marshalled to show the bottler how he can improve his product and keep up with his competition. Most, if not all, of these arguments have to do with "Improved Product" in the form of "Better carbonation, therefore better, more satisfying, more pleasing, carbonated drinks."

Why have the soda fountains been overlooked in this campaign for better drinks? There are a hundred high-class soda fountains for every bottler. Certainly, they want increased patronage and profit, if better drinks will bring it. If better carbonation for the bottler makes better drinks, why has not the same barrage of sales and engineering arguments been leveled on this larger market? Why hasn't the refrigeration industry capitalized on the popular public demand for colder carbonated drinks from soda fountains?

It is an accepted fact that water chilled to 40° permits the carbonator to do a better job. Add to this proper and adequate refrigeration at the fountain after carbonation and the beverage can be dispensed at the 42° temperature that the American public demands.

Filtrine form 800a shows the application of single storage type water cooler and filter installed to supply chilled filtered water to a carbonator, and also with a branch outlet to boost the capacity and lower the temperature of the sweet water outlet at the fountain.

Anything that the refrigeration trade can sell profitably to customers, who in turn, can increase the sale of their own products, should be worthwhile and profitable merchandising, for all concerned.

CHARLES F. HANSEL,
President

Muller Resigns Job On Committee

Refrigeration Supplies and Parts Manufacturers Association
111 West Washington St.
Chicago, Ill.

Editor:

Your very prompt use in your April 5 issue of the list we sent you of committee appointments made by our board of directors for this year prevented our notifying you in time to make it possible for you to omit the name of Charles Muller, secretary, Rotary Seal Co., Chicago, as a member of our R.S.E.S. relations committee.

Due to demands upon his time, Mr. Muller had asked President Forbes, after being notified of his appointment, to relieve him of any committee assignments for the time being.

Pending the filling of the vacancy thus created on our R.S.E.S. relations committee, President Forbes, in his ex-officio capacity, will serve as the third member of this committee.

RICHARD M. MCCLURE,
Executive Secretary

Black & Seitz Articles

C. A. Longbrake Refrigeration Service
Elyria, Ohio, R. D. No. 2

Sirs:

Please enter my subscription again for another 13 weeks when my first 13-week subscription runs out.

Please do not miss any copy as I am following the article on soda fountains, etc.

C. A. LONGBRAKE

Distributor-Dealer Doings

Christy and Curtis Head New G-E Branch

ST. PETERSBURG, Fla.—W. T. Christy has been appointed manager, and C. E. Curtis operating manager, of General Electric Co.'s new factory distributing branch here.

The new branch replaces G-E's former distributorship, George Patterson, Inc., and will be responsible for wholesale distribution of household and commercial refrigeration, ranges, water heaters, dishwashers, electric sinks, disposalls, home laundry equipment, and unit kitchen parts.

Mr. Christy had been assistant manager of the G-E specialty appliance division for the last six months. He began with G-E as a stock clerk in the National Lamp Works, later sold electric irons for Electric Specialty Co., joined Edison General Electric Appliance Co. in 1921, and in 1922 became vice president of United Supply Co., his own company in Dallas.

He left United Supply to sell Hamilton Beach motor appliances, and then returned to Edison G-E as district manager and southern division supervisor for 14 years.

Mr. Christy went to G-E's Nela Park headquarters in 1937 as chairman of the management committee and manager of range and water heater sales.

Mich.-Wis. Utility May Stop Selling

MENOMINEE, Mich.—In furtherance of its plan to discontinue appliance sales in competition with independent dealers, Menominee & Marinette Light & Traction Co. has announced appointment of Oliver Allard as dealer representative.

Mr. Allard will contact dealers in both Menominee and its twin city, Marinette, Wis., and will coordinate selling efforts through joint sales and advertising campaigns, cooperating with individual dealers and salesmen in developing new business.

Continuation of the project, utility officials have announced, hinges upon the ability of independent dealers to maintain appliance sales volume equal to that realized in the twin cities when the utility competed in the merchandising field.

Appointment of 8 Dealers Announced By Leonard

DETROIT—Appointment of eight new Leonard dealers was announced this week by Ray Legg, general sales manager. The new dealers are:

The Sims Drug Co., Sublette, Kan.; Fellsburg Garage, Fellsburg, Kan.; Protection Hardware Co., Protection, Kan.; Fair Plumbing Co., Great Bend, Kan.; V. E. Hull, Adrian, Mich.; Wiers Appliance Co., Muskegon Heights, Mich.; Fridenstine Co. and the Edvalson Appliance Co., Ogden, Utah.

Oklahoma Dealers View Philco Conservador

OKLAHOMA CITY, Okla.—The new Philco Conservador electric refrigerator was introduced at a meeting here attended by more than 250 Oklahoma electrical appliance dealers. Philco officials present included Walter LeFebre, Howard D. Mathis, and George Parshall, Philadelphia; W. H. Campbell, Kansas City; W. E. Kress, Oklahoma City.

500 Westinghouse Men Meet In Minneapolis

MINNEAPOLIS—Improved business conditions and increased sales this year of electric refrigerators, ranges, and other appliances were predicted by Westinghouse Electric & Mfg. Co. officials who met at Hotel St. Paul recently with 500 dealers from five states.

Officials present at the meeting included J. C. Schmidtbauer, Chicago, district manager of Westinghouse Electric Supply Co.; J. L. Fitch, St. Paul manager of the company; J. S. Fly, Minneapolis manager, and C. J. Lammers, Chicago, sales development manager of Westinghouse Electric & Mfg. Co.

166% Improvement Is Reported In Jersey

NEWARK, N. J.—An increase of 166% in business for the first three months of the current year as compared with the corresponding 1938 period has been announced for Philip H. Harrison & Co., Northern New Jersey General Electric distributor.

Announcement of the sharp business uptrend was made by Thomas E. Babson, advertising and sales promotion manager, in addressing the firm's one-day convention in Krueger Auditorium here.

More than 500 persons, representing 123 dealers and 50 prospective dealers and their salesmen, attended the convention, purpose of which was to plan sales campaigns covering the remainder of the year. Featuring the gathering was presentation of "Get Over into Clover," two-act play sponsored by General Electric.

Philco Products Shown To Arkansas Dealers

LITTLE ROCK, Ark.—The Bush-Caldwell Co. was host to the members of the Arkansas Philco Dealers Association at a dinner at the Hotel Marion. New models of the Philco Conservador refrigerators and new portable air-conditioning units were displayed. R. J. White, district supervisor for Philco, discussed the sales and advertising program.

Quota of One Sale a Day Met By Dealer

ROCKINGHAM, N. C.—Hallum Furniture Co., Stewart-Warner and Hotpoint dealer here, has been keeping up with a pretty tough schedule. This organization set a quota of at least one refrigerator sale a day for the month of March, and by the middle of the month they were still abreast of this schedule. The six refrigerators sold on one particular day didn't hurt the store's average any, Manager Vim reports.

Haverty Furniture Co. Takes On G-E Appliances

ASHEVILLE, N. C.—Haverty Furniture Co.'s local store, managed by Leon Walker, has taken on the General Electric line of appliances.

Torrington, Conn. Dealer Off To Good Start

TORRINGTON, Conn.—Off to a head start on electric refrigerator sales is the W. W. Mertz Co., General Electric dealership here. Manager Herb Knauf and his men sold 22 units during January.

(Reprint of an advertisement published by Universal Cooler Corporation in 1933)

UNIVERSAL COOLER

The "LONG HAUL" *Basis*

Constructive planning views current problems in the light of tomorrow as well as of today. A problem solved with today in mind only, often results in future problems even more serious. We try to shape our policies according to the "long haul" basis—and are content with a slower growth so long as that growth is sound.

WHEN Universal Cooler Corporation published this "THE LONG HAUL BASIS" advertisement six years ago it stated a policy to which it has adhered ever since. And the success of Universal Cooler Corporation since then bears witness to its soundness.

As suppliers of condensing units to leading manufacturers of refrigeration and air conditioning equipment, Universal Cooler Corporation has a dual responsibility. It is responsible to these manufacturers for supplying condensing units that are salable and dependable. It is responsible to these manufacturers' customers for supplying refrigerating equipment that will give satisfactory service under all conditions at low operating cost and with the minimum of service.

Manufacturers of refrigerating equipment who are interested in improving their products and service to their customers are invited to write for complete information. Experienced engineers are at your service.

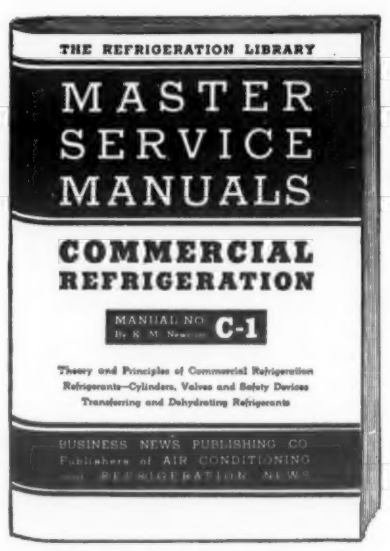
UNIVERSAL COOLER CORPORATION

Detroit, Michigan

or in Canada, Universal Cooler Co. of Canada, Ltd., Brantford, Ontario

Service Men—

Now Is the Time To Go After Those Big-Profit Commercial Jobs!


THE REFRIGERATION LIBRARY
MASTER SERVICE MANUALS
COMMERCIAL REFRIGERATION
MANUAL NO. C-1
Theory and Principles of Commercial Refrigeration
Refrigerants—Cylinders, Valves and Safety Devices
Transferring and Dehydrating Refrigerants
BUSINESS NEWS PUBLISHING CO
Publishers of AIR CONDITIONING and REFRIGERATION NEWS

MANUAL NO. C-1—Theory of refrigeration presented in a more complete manner than in previous manuals. Properties of refrigerants, effect on lubricating oils, inflammability, etc. Refrigerant cylinders, valves, and safety devices. Drying and transferring refrigerants. 96 pages. Price $1.00.

MANUAL NO. C-2—Installation and service methods. Detailed information on commercial condensing units and their component parts. Instructions on installation and service procedure for flooded evaporators, float valves, and two-temperature flooded systems. 112 pages. Price $1.00.

MANUAL NO. C-3—Installation and service methods continued. Chapters on expansion evaporators, blower units, thermostatic expansion valves, pressure and temperature controls, motors, starters and overload relays. 144 pages. Price $1.00.

Minimum extra charge for each package of books shipped outside the U. S. is 50¢. Six $1.00 books may be shipped in one package.

BUSINESS NEWS PUBLISHING CO., 5229 Cass Ave., Detroit, Mich.

For Your Convenience and Profit!

✓ *marks the Spot* ★ ★ ★ ★

where you can get PROMPT DELIVERY from stocks

DU PONT *Artic* The Preferred METHYL CHLORIDE for Service Work

DU PONT E. I. DU PONT DE NEMOURS & COMPANY, INC. • The R. & H. Chemicals Department • Wilmington, Delaware

District Offices: Baltimore, Boston, Charlotte, Chicago, Cleveland, Kansas City, Newark, New York, Philadelphia, Pittsburgh, San Francisco

Air Conditioning

Big Turnout Encourages Quad-City Group; Plan Preparation of Design Standards

ROCK ISLAND, Ill.—A turnout of 67 air-conditioning dealers, engineers, sheet metal contractors, and others interested in the air-conditioning field at the first meeting late last month of the Quad-City Air Conditioning Society has made officials of the new group confident of the success of this organization, says James Pelk of the Tri-City Electric Co., General Electric dealer in Davenport, Iowa, and vice president of the society.

The organization gets its name from the four cities which adjoin each other—Moline and Rock Island on the Illinois side of the Mississippi, and Davenport and Bettendorf on the Iowa side. At the first meeting, however, there were men in attendance from several other cities also—some from as far away as Kewanee.

Several of the men in the new organization were members of a former local chapter of the American Society of Heating & Ventilating Engineers. However, it was felt that an engineering society would be too restrictive on the membership that was desired in the new organization, so the society was formed with membership open to all who might have an interest in the field.

Henry Sharp of the Herman Nelson Corp., Moline, presented the nominations for officers at the meeting, and the following were elected:

Earl H. Beling, Beling Engineering Co., Moline, president; Mr. Pelk, vice president, George Unlmeyer, People's Power Co., Rock Island, secretary-treasurer. A constitution was proposed by William A. Reichow of the Minneapolis-Honeywell Regulator Co.

The group is planning to prepare design standards in air conditioning based on weather records.

At the meeting last month, the guest speaker was Herbert E. Ryerson of the architects and builders division of the Peoples Gas, Light & Coke Co., Chicago. Mr. Ryerson spoke on "Winter and Summer Air Conditioning."

Powers Heads Carrier District

CLEVELAND—L. G. Powers, formerly branch manager for Carrier Corp., has been promoted to the position of district manager.

Air Conditioning Could Improve Tobacco, Cut Costs, Chemists Told

BALTIMORE — Adoption of air conditioning by tobacco growers has been proposed here as a means of improving the quality of tobacco leaves and reducing the present costs of curing and drying processes.

In a talk before the American Chemical Society, Prof. Albert H. Cooper of the Virginia Polytechnic Institute described a new air-conditioning technique which promises to bring substantial economies to the tobacco-growing industry.

"Today no definite rules are followed in the curing process," Prof. Cooper asserted. "Each grower employs certain procedures handed down by his predecessors, altered to suit his own ideas. Consequently, great losses of tobacco occur each year because of inefficient methods."

Using carefully controlled temperatures, humidities, and air velocities, this investigator determined that certain optimum air conditions for each of the several stages of drying and curing the tobacco leaf would take the guesswork out of present practices.

To make air conditioning practical for all growers in a given territory, he suggested that the curing be done in large cooperatively operated, air-conditioned buildings, larger than present tobacco barns and readily accessible to growers by motor truck.

Advantages claimed for the new method are (1) a 50 to 60% reduction in time of curing and drying, (2) uniform quality of tobacco without appreciable loss, (3) elimination of stem greenness, which often ruins tobacco, (4) considerable reduction in labor and fuel requirements, (5) increased capacity of barns as a result of shortened processing time, and (6) reduction of fire hazards.

Passage of Iowa Operator Law Appears Doubtful

DES MOINES, Iowa—Air-conditioning dealers in Iowa are playing a waiting game on a bill introduced in the state legislature which would require a "stationary engineer" (licensed full-time operator) for every air-conditioning system of 5 tons refrigerating capacity, with the idea that the bill will die a natural death—that is, never come up on the floor for consideration.

They are prepared to fight the bill if it does come up, but there is little possibility that it will. The bill is now in the hands of a "sifting committee," whose duty it is to see that only the most important measures are brought to the floor for consideration before the session closes, which will be April 19. At least that's when the daily pay stops for the Iowa legislators.

The legislative measure was said to have been drawn by labor interests.

Addition of 105 Firms Reporting Boosts January Conditioning Sales Over 1938

WASHINGTON, D. C.—Orders for air-conditioning equipment booked by 230 U. S. manufacturers during January of this year amounted to $1,567,593, according to statistics for the month compiled by Director William L. Austin of the Bureau of the Census.

Scope of the survey this year has been greatly increased, since last year orders booked by only 125 American manufacturers were compiled. This January, these 125 firms booked orders totaling $1,209,830, as against $1,245,552 in the same month a year ago.

Orders for self-contained summer air conditioners up to and including 1 hp. amounted to $37,235; for units over 1 hp. and up to 5 hp., $26,239; and for units over 5 hp., $4,019. Summer air conditioners not self-contained had orders for the month amounting to $70,348.

Central-station systems for human comfort recorded orders totaling $196,322 for the month, while industrial central-station system orders were $9,494. Year-around central-station systems for human comfort showed orders amounting to $120,313. Orders for refrigerating units for sale with air-conditioning systems were divided as follows during the month:

Under 1 hp., $5,809; 1 hp. to 10 hp., $31,857; 10 to 25 hp., $36,314; 25 to 50 hp., $29,770; 50 to 100 hp., $24,951; and over 100 hp., $51,933.

Condenser orders booked during the month for shell-and-coil or shell-and-tube units amounted to $14,612; for units of the evaporative type, the January total was $41,317. Orders for heat transfer and direct expansion coils reported for the month amounted to $78,970. Blower-filter unit orders for January were reported at $17,455. Complete dollar-volume totals for the month, for both 230 and 125 manufacturers (the latter companies included in the larger total) will be found in the following table:

* * *

	Value of Orders Booked	
Number of manufacturers reporting	230	125
Total	$1,567,593	$1,209,830
Air-conditioning systems primarily for **summer** use:		
Systems for installation in room or rooms to be conditioned:		
Self-contained:		
Up to and including 1 hp.	37,235	37,235
Over 1 hp. up to and including 5 hp.	26,239	26,239
Over 5 hp.	4,019	4,019
Not self-contained, same as above excluding refrigerating unit	70,348	70,348
Central station systems complete (including cost of installation, if to be installed):		
For human comfort	196,322	185,322
For industrial use	9,494	9,494
Year-around air conditioning central station systems (including cost of installation, if to be installed):		
For human comfort	120,313	120,313
For industrial use	5,036	5,036
Air-conditioning systems primarily for **winter** use:		
Complete units, including furnace, blower, air cleaner, humidifier, and control equipment	346,599	169,666
Warm-air furnaces, for sale separately	199,179	54,923
Air-conditioning unit, for use with steam or hot water boiler, consisting of heat transfer coils, air cleaner, blower, humidifier, and control equipment	15,668	15,582
Component units of air-conditioning systems (other than furnaces) **for sale separately:**		
Refrigerating or cooling units for sale for air-conditioning systems:		
Under 1 hp.	5,809	5,719
1 hp. and over but under 10 hp.	31,857	29,457
10 hp. and over but under 25 hp.	36,314	34,921
25 hp. and over but under 50 hp.	29,770	29,770
50 hp. to and including 100 hp.	24,951	24,951
Over 100 hp.	51,933	51,933
Steam jet refrigeration	18,047	18,047
Dehumidifiers using chemical compounds, such as Silica Gel, Alumina, and lithium chloride	1,692	1,692
Condensers:		
Shell and coil or shell and tube	14,612	14,612
Evaporative type	41,317	41,317
Heat transfer coils and coils for direct expansion	78,970	68,233
Units consisting of heat transfer coils, air cleaner, blower, humidifying and dehumidifying equipment, **but excluding heating and cooling units**	40,080	38,259
Circulating unit consisting of blower and filter	17,455	12,593
Air filters **for sale separately** (sales of filters used with machinery other than fans are not included):		
Automatic self-cleaning filters	274	244
Medium resistance non-automatic filters	9,588	9,588
Low resistance non-automatic filters	3,436	2,950
Other	6,942	6,273
Air washers, including pumps and motors and control where furnished	42,043	41,878
Humidifiers:		
Human comfort type:		
Independent unit not for use with air-conditioning apparatus	7,134	6,742
Unit for use with air-conditioning apparatus	25,417	23,366
For industrial use (textile mills, etc.)	49,500	49,108

Another REFRIGERATION PROBLEM SOLVED by Baker

AT IOWA UNIVERSITY GENERAL HOSPITAL

PROBLEM: To economically and efficiently (1) cool 55 refrigerators, (2) cool drinking water for entire building, and (3) produce 7-1/2 tons of ice daily.

SOLUTION: After careful analysis, BAKER engineers installed one 7¼ x 7¼ and two 6¼ x 6¼ BAKER ammonia compressors with proper auxiliary equipment.

SPECIFY BAKER TO SOLVE YOUR PROBLEMS, TOO

● The most complicated refrigeration and air conditioning problems are easily solved with the aid of BAKER engineering and equipment. Thirty-five years' experience in building superior mechanical cooling units . . . plus a complete range of compressor sizes . . . enable BAKER to meet the requirements of any job—large or small—perfectly. Clients appreciate the quiet, trouble-free, low-cost operation and high efficiency of a BAKER installation, and pass the word along to friends who are prospective buyers of refrigeration and air conditioning equipment. Get full details now concerning the profitable BAKER franchise by writing to

BAKER ICE MACHINE COMPANY, INC.
1506 Evans St. Omaha, Nebraska
Branch Factories: Fort Worth Los Angeles Seattle
Eastern Sales: New York Central Sales: Chicago
Sales and Service in All Principal Cities

AUTHORITY ON MECHANICAL COOLING FOR 35 YEARS

Comfort Provided For Hospital Patients By Air-Conditioning Installation

• • •

By Henry Knowlton

OKLAHOMA CITY, Okla.—Comfort for patients and physicians alike is assured by the 25-ton Frigidaire air-conditioning system installed by Howard E. Melton, Inc. in the new Bone and Joint Hospital and McBride Clinic here.

Devoted to diseases and deformities of bones and joints, the new hospital is operated by Doctors Earl D. McBride, Elias Margo, Howard B. Shorbe, and William K. Ishmael.

The combined heating and air-conditioning system is of the central-station type, with three supply ducts leading from three separate sets of coils to the basement, first floor, and second floor sections of the building.

DESIGN CONDITIONS

Design conditions for the system call for the reduction of dry-bulb temperature from 101 to 81° F. and wet-bulb temperature from 77.3 to 66° F.

The built-up conditioner, which handles 11,600 c.f.m. of air, is insulated with 1 inch of sheet cork covered with a mixture of cement plaster and asbestos.

Three banks of coils, each containing one six-row hot water coil and one eight-row multipath "Freon" coil, serve the three zones in the building. Coil temperatures are held at 140° F. for heating and 60° F. for cooling.

Each coil is equipped with louver dampers, which operate in a manner which opens the heating coil dampers when the cooling coil damper is closed, and reverse the process when the cooling coil damper is open. Thus the coil section which is not in use serves as a by-pass for excess air.

OPERATION OF DAMPERS

Operation of the two-way dampers is controlled by Minneapolis-Honeywell thermostats located on each floor of the building. According to Howard Melton and his engineer, Earl R. Correll, it is possible to maintain temperatures in the building at any desired point by this system of control.

The system is powered by a 20-hp. Frigidaire compressor, which is said to produce 25 tons capacity when operating at the design conditions established for the system. Heat is provided from a Bryant gas boiler.

Economy of operation is aided by the use of a Frigidaire EC-212 evaporative condenser, installed in the basement of the building near the compressor and conditioner housing. This unit takes air from the basement, exhausting the moisture-laden heated air to the outdoors.

DUCT INSTALLATION

Supply ducts are run through a furred overhead space above the hallways, with lead ducts entering each room above the door. Return air is taken through grilled openings in the base of each bedroom door.

Return air grilles are equipped with tight-fitting metal plates which may be closed when the use of ether or other surgical conditions makes it necessary to isolate any room.

Return ducts run to the conditioner from a point in the hallway of each zone in the building. Spray-type humidifiers are located in these return air ducts, to maintain the desired moisture conditions in the building.

Reduction in the overall heating and cooling load was made possible by the installation of 4 inches of Eagle Pitcher lead wool in the second floor ceiling and on the exposed side walls of the structure.

System Combats Dust Storms & Removes Hospital Odors

• • •

By Earl D. McBride, M.D.

FOR four years, Oklahoma has been smothered in dust each spring. The first dust storm that occurred this year brought to realization that the air-conditioning equipment installed in our new hospital-clinic building was worth far more than it cost. In fact, such equipment cannot be measured in dollars and cents.

The name of our institution is The Bone and Joint Hospital. The building provides 40 hospital beds. Our special field of medical work includes the treatment of injuries, such as fractured bones, dislocated joints, deformed limbs, and rheumatic diseases.

The equipment necessary for scientific medical work in this particular field requires many facilities not usually installed in a general hospital. It is necessary to have a physical therapy department, where steam is used, and where electric apparatus gives off heat. Also, it is necessary to have a brace and splint shop, where there are odors and fumes from the mechanical work.

Two fully equipped surgical operating rooms are necessary, and in these rooms the odors of anesthesia, such as ether, are to be contended with. In addition, foul smelling dressings as those resulting in the treatment of osteomyelitis and other necrotic infections are very offensive.

When the patient is to be comfortably and pleasantly housed in the same building where all of the daily activities of the clinic are taking place, a serious problem is presented in selecting the proper air-conditioning equipment.

We have now occupied the new building since Feb. 1, 1939. Although it has been necessary to make adjustments every few days because of the extreme and acute weather changes, the system has given us entire satisfaction and comfort.

Not only has the building been entirely dust free and the air much more pleasant, but there has been no odor of ether or fumes present at any point in the building since installing the air-conditioning plant.

The personnel consists of 25 persons, including doctors, nurses, and assistants, and many of them have expressed the observation that there have been no colds or upper respiratory symptoms since moving into the building, while at the same time there has been quite an epidemic of colds and influenza in the city.

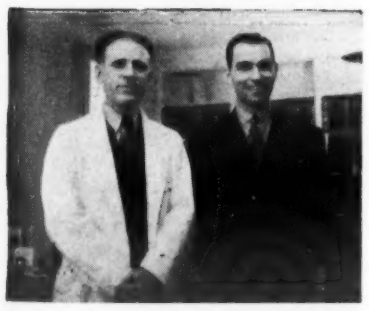
Patients coming into the building from outdoors express surprise at the freshness of the air. They are often asked if they smell any of the odors usually familiar to a hospital on entrance. As yet we have found no one who would admit that the building had any drug odor present.

The patients usually committed to be in our institution are well except for a broken leg or some condition affecting an extremity, and are often critical because of being penned up when in reality they are not sick. The air conditioning has made a difference in this type of patient, in that they are better satisfied because of the pleasantness of the rooms.

The cost of operation of the air-conditioning system, for the short period which we have used it, has been surprisingly within reasonable limits.

It is now the opinion of the staff of our clinic that no group could afford to build a hospital building without installing the best air conditioning that can be obtained.

Doctor Enthusiastic



Dr. Earl D. McBride of the Bone and Joint Hospital, Oklahoma City, and Harold E. Melton, Delco-Frigidaire distributor.

Map Aids Chicago Salesmen

CHICAGO—To aid air-conditioning salesmen in soliciting prospects in the Roseland district, Commonwealth Edison Co.'s air-conditioning division has prepared a map of S. Michigan Ave. from 110th St. to 114th St., showing all business establishments and indicating by shaded areas those which are already air conditioned.

NOW-Boost your Profits with the V-Belt Salesmaker

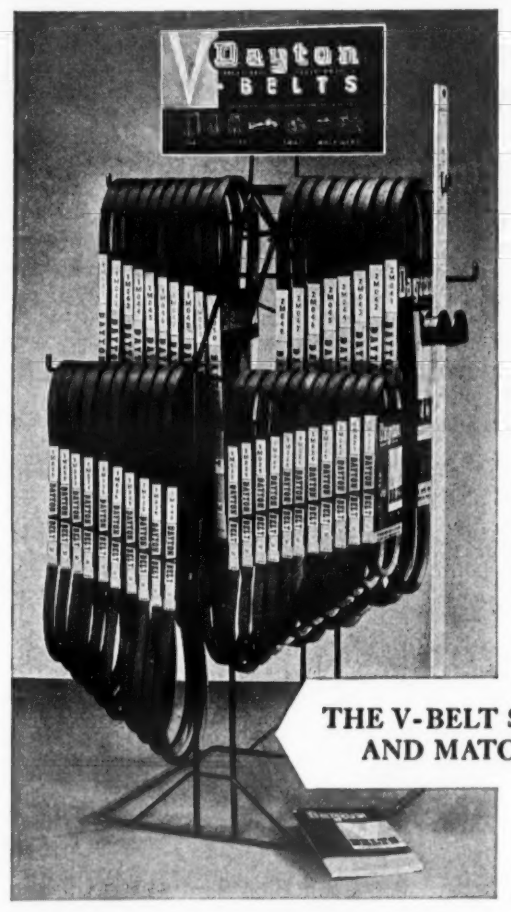
THESE 3 WAYS
EXTRA SALES
EXTRA PROFIT
EXTRA SERVICE

V-BELT REPLACEMENT SALES MEAN EXTRA PROFITS FOR YOU

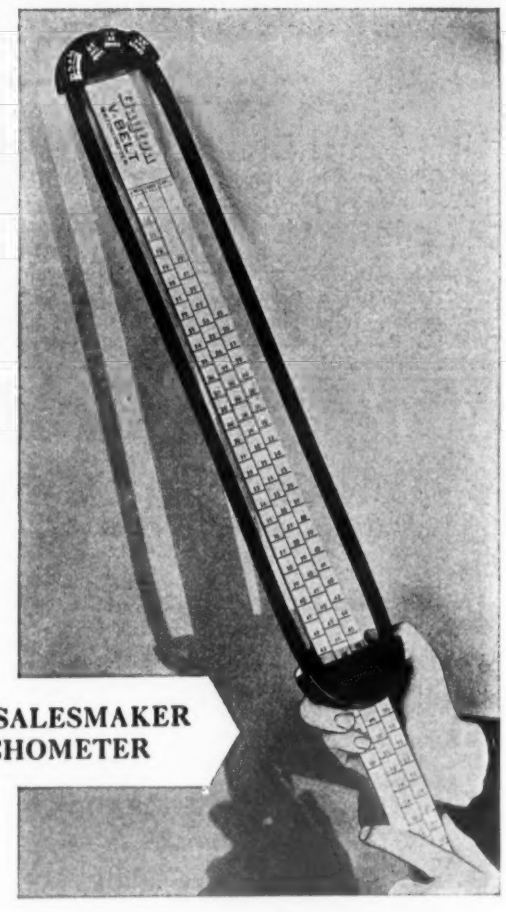
Spotlight your store as the neighborhood service headquarters for F.H.P. belt replacements. Give this profit-making extra service to hundreds of your neighborhood prospects. Show them—and sell them the right V-Belt replacement for all makes of Electric Refrigerators, Washing Machines, Oil Burners, Coal Stokers, Water Pumps, Beer Pumps, Air Compressors, Wood Working Machinery, Small Garage Equipment and hundreds of other small machines.

The Dayton V-Belt Salesmaker is new and it's news. It's a light, rugged, compact and visual display which contains an assortment of 39 of the fastest selling V-Belts. It takes little space—on your counter, in your window or beside a counter—but it tells at a glance that you have V-Belt replacements for every need—and it costs you only $19.89 complete.

And, since the $19.89 price is the actual cost to you of the complete assortment of 39 belts alone, the Dayton V-Belt Salesmaker is yours *without extra cost.*



THE V-BELT SALESMAKER AND MATCHOMETER



THE DAYTON V-BELT SALESMAKER—An attractive, visual and compact display rack assortment of 39 fast-selling V-Belts. Comes ready to use, with belts on the racks. Fits on your counter—Beside your counter—or in your window. Every belt at your finger tips. On the back is a quick reference price list and extra hanger space for spare belts. Also included is a Reference Catalog listing all types of small machinery with corresponding Dayton V-Belt number and other data.

THE V-BELT MATCHOMETER—*FREE* during this introductory period! Listing regularly at $1.25—the V-Belt Sliding Pulley Matchometer takes the guess-work out of measuring belts to be replaced when the make and model of the machine cannot be identified. Quickly, simply and accurately this indispensable V-Belt Matchometer shows you the correct replacement V-Belt for any need. Read below how you can get it free.

CLOSE-UP OF THE V-BELT MATCHOMETER shows how it takes the guess-work out of measuring old belts and tells at a glance correct replacement needed. Regularly priced at $1.25, it's yours *free* if you act and use the coupon today.

If you sell hardware or convenience items—if you sell or service large or small electrical appliances or automatic heating equipment, you need the Dayton V-Belt Salesmaker. Cash in on the hundreds of replacement belts that your neighborhood customers regularly need, but do not know where to find. Let the Dayton V-Belt Salesmaker tell them—and sell them for you. Increase your scope of service—get extra sales and extra traffic as your store becomes the neighborhood mecca for V-Belt replacements.

THE DAYTON RUBBER MFG. CO. • DAYTON, O.
World's Largest Manufacturers of V-Belts

ZIP THIS OUT TODAY

FREE—If you act quickly—The Dayton V-Belt Sliding Pulley Matchometer.

V-Belt Sales Division,
Dayton Rubber Manufacturing Co.,
Dayton, Ohio.

Gentlemen:

I have done my part and checked my preference below—so please do yours and follow through quickly.

☐ Rush me (freight prepaid) one complete unit of the Dayton V-Belt Salesmaker, including display rack, Ready Reference Catalog and standard assortment of the 39 fastest selling V-Belts for which I will remit $19.89.

☐ Include FREE* the V-Belt Sliding Pulley Matchometer which regularly lists at $1.25, but which comes to me in the same shipment without any additional charge.

☐ Have your nearest jobber send a salesman, explaining the *Free Matchometer Offer which comes with the Dayton V-Belt Salesmaker during the introductory period.

NAME.....

ADDRESS.....

CITY.....STATE.....

DATE*.....

*This Free Matchometer offer expires July 15, 1939, and we reserve the right to withdraw it before that date.

THE DAYTON V-BELT SALESMAKER $19.89

Complete with 39 Assorted Fastest Selling V-Belts.

Product Cooling

Shippers of Perishable Produce Profit By Pre-Cooling Fruit In 'Reefer' Cars

By Henry Knowlton

BROWNSVILLE, Tex.—From the fertile valley of the Rio Grande, where fruits and vegetables are picked at field temperatures well over 105° F., comes the story of how Ralph Killingstad has built a splendid business for himself and his associates by discovering a new use for commercial refrigeration.

To understand the success of Shippers Precooling Service, of which Mr. Killingstad is owner and general manager, it is necessary to understand something of the problems that confront the shipper of perishable produce.

Cantaloupe picked in the blazing sun of southern Texas must be shipped north in refrigerator cars. In spite of the fact that these cars are iced several times during their 60 to 70-hour journey north, "field heat" remaining in the fruit after picking often causes losses from spoilage running as high as 30%.

Considering the fact that canteloupe may be worth $1,750 per car, and that prime fruit will bring premium prices, it becomes readily apparent that it would be worthwhile to prevent this field heat spoilage—if at all possible.

Understanding the economics of the problem, Mr. Killingstad went to John H. Hunter, Inc., Frigidaire dealer of Brownsville, and suggested that a mobile cooling unit be designed and built. Mr. Hunter talked the matter over with R. C. Agnew, commercial manager of the Straus-Frank Co., distributor at San Antonio, Tex., Robert Kotzebue, of the distributor's air-conditioning department, and Guy C. Stoltz, Straus-Frank air-conditioning engineer.

In the course of time a plan was submitted to Mr. Killingstad for the construction of a mobile cooling unit, built on the chassis of a standard Ford V-8 truck.

Equipment mounted on this truck included a 35-ton Frigidaire air-conditioning compressor, a 35-ton direct expansion conditioner, a Ford V-8 gasoline engine which drives the compressor, and a large evaporative condenser which is used to cool the refrigerant in the system.

With this cooling capacity it is now possible to connect the conditioner to a standard refrigerator car and reduce temperature of the produce inside the car from well above 100° F. to approximately 45° F. in about four hours.

The Shippers Precooling Service charges the shipper $25 per car for this cooling operation, and considering the fact that the shipper stands to save hundreds of dollars in possible spoilage of the produce, this is considered a very reasonable charge for the service.

By use of this cooling service, shippers are often able to get a premium price for their product at the point of destination. One shipper reported that he received 62 cents a crate premium for a car of cantaloupe which was packed in Laredo, Tex., and placed on the market in Montreal, Can., in perfect condition.

Five equipped trucks are now operated by Shippers Precooling Service, Inc., and Mr. Killingstad has obtained a patent on his process of removing the field heat from produce before shipment.

One thing which makes the business of Shippers Precooling Service profitable is the geographical range of operation of the company's five trucks. Units used for cooling cantaloupe during May and June are then moved to Eagle Lake, Tex., for the purpose of drying potatoes which are dug out of muddy ground in this region. Shippers report better prices for potatoes that have been washed and are thoroughly dry before placing in cars.

The trucks also are used for drying onions, but during July they find a major operation in the cooling of early Texas tomatoes.

After the tomato crop is harvested, the cooling units move to Arkansas, where they are used to cool peaches, and follow this crop north into Tennessee and up as far north as Centralia, Ill.

Last year the trucks were sent to the eastern shore of Maryland to experiment with the cooling of strawberries before shipment, but results of these tests have not been made available.

During August the fleet is busy in Nebraska, drying potatoes, and then moves to the Grand Junction, Colo. section of the western slope of the Rocky Mountains during September.

In October the five trucks move down in the Rio Grande Valley to start winter operations on the citrus fruit crop, where they are kept busy until spring.

Pre-Cooling Scheme Pays Off

John H. Hunter of John H. Hunter, Inc., world's largest Frigidaire dealer (note height and weight), with Ralph Killingstad, president of Shippers Precooling Service; Walter Galloway of the same organization; and Earl C. Hunter, service manager of John H. Hunter, Inc. Shippers Precooling Service operates 5 trucks equipped with 35-ton Frigidaire cooling systems.

One of five Ford V-8 trucks, equipped with 35-ton Frigidaire air-conditioning systems, used by Shippers Precooling Service of Brownville, Tex. to remove field heat from fruit and vegetables after they have been placed in a refrigerator car. Note Ford V-8 gasoline engine operating conditioner, and evaporative condenser mounted with conditioner.

Fruit, Vegetables Stored To Await Marketing

NEW JERUSALEM, Pa.—S. B. Eckert operates the Panorama Fruit Farms near here and three days a week he takes his wares to the city market booths. He handles both fresh fruit and vegetables; so he necessarily must store a large variety of foods on the farm preparatory to taking them to market.

The room in which this food, and also the food for Mr. Eckert's own table, is stored is cooled by Frick equipment sold and erected by Marr Engineering Co., Reading, Pa.

The storage room measures 16 x 20 x 10 feet, and is equipped with Gebhardt bunker-type coils with fan and water catch pan near the ceiling. Refrigeration is furnished by a 3-ton Frick methyl chloride unit.

Proper humidity is provided by passing some of the water from the catch pan under the coils to the storage room floor.

Provision For Addition Included In Storage Cooling Equipment

ROCKY HILL, Conn.—Cooling for two storage rooms in a central building, for another (and larger) storage room annexed to one side of the main plant, and for a similar annex which may sometime be built on the opposite side is provided by equipment installed in the fruit storage plant of R. H. Gardner here by Automatic Refrigerating Co., Hartford, Conn.

SIZES OF ROOMS

One of the rooms in the main building measures 48 x 40 x 15 feet and the other measures 64 x 40 x 15 feet. The two are connected by a large door. In the smaller room, one model 15003-AU Frick room cooler is located on either side of the connecting door. Ductwork has been installed so that the blower on the side of the storage annex (which measures 112 x 30 x 15 feet) can be used for this new storage or for either one of the two central storage rooms.

A similar provision has been made for a possible future addition on the other side of the main building.

At the present time, a thermostat is located in each one of the three storage rooms so that when any of these is cooled down to the proper temperature the compressors will be shut off to prevent freezing of the produce stored.

MACHINE ROOM SEPARATE

A separate machine room, adjacent to the storage annex, contains two 6 x 6 compressors, operated by 25-hp. motors, and also a No. 9105-A evaporative condenser.

A small balancing tank suspended horizontally from the ceiling is connected to three 6-sq. ft American Radiator sections, which are in turn connected to the pipes leading to and from the water jackets of the compressors. Under normal summer operation, the water is circulated from the pan at the base of the evaporative condenser, through the water jackets of the compressors, to the spray nozzles in the condenser.

COLD WEATHER OPERATION

In cold weather the evaporative condenser is drained and the same cooling system is used, like an automobile radiator, with alcohol in the water to the jackets. Shutoff valves are arranged so that the system can be changed over from the evaporative condenser to the separate jacket cooling system without disturbing any of the piping.

Under this system of winter operation, water can, if necessary, be used on the condenser and then drained off when the temperature drops, allowing the water jackets to be handled entirely from the separate cooling system with the alcoholic solution.

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The glass of ice and water you stir . . . ?

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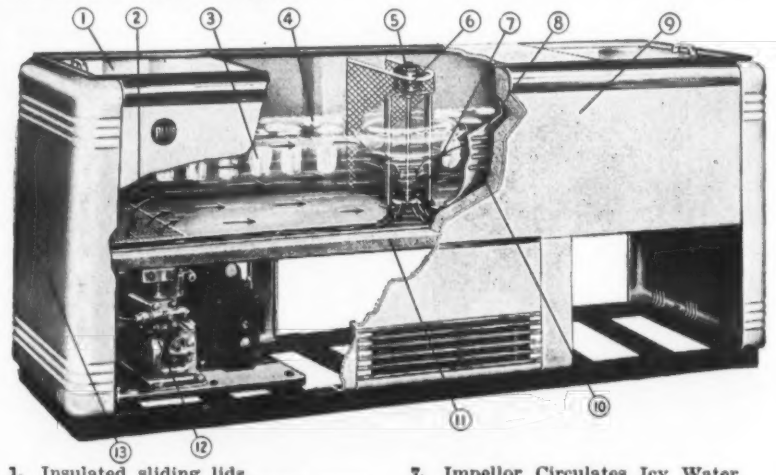

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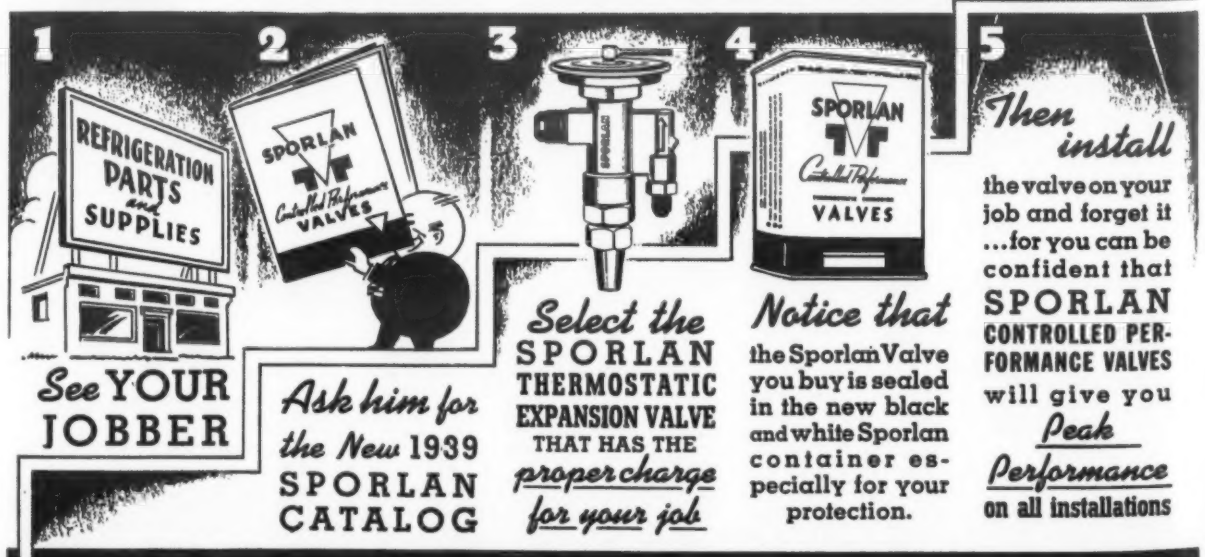

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Service Information

Service Engineer Makes Duplex Charging Board To Aid Service Work

ALBANY, N. Y.—An ingenious type of duplex charging board, which can be adapted by any refrigeration servicing organization to speed up and simplify charging and testing work on both open and sealed household units, has been developed by John Romaine, head of United Refrigeration Service & Installation Co.

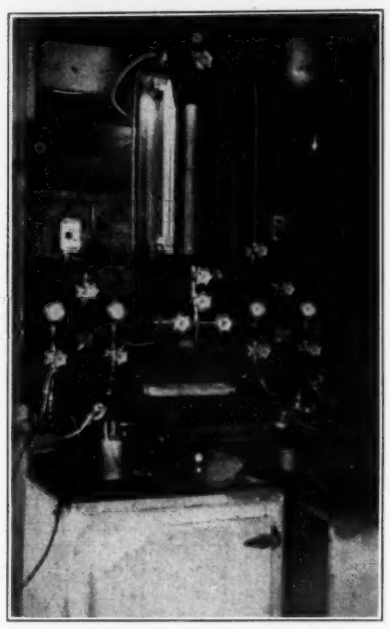
The duplex arrangement makes use of a standard Kerotest charging board, which Mr. Romaine has arranged to take care of two machines instead of one.

As may be seen from the photograph at right, the board is fitted with a number of hand valve controls, and is a complete unit, with suction and pressure gauges mounted on it for each machine, plug-in sockets for testing units, and refrigerator cabinets beneath on which the repaired units can be run-in, duplicating normal performance in the home.

A 25-lb. drum of sulphur dioxide is mounted above the charging board itself, and the gas passes from this through the regular container on the board, where a sight-glass gauge indicates just how much refrigerant is being put into each machine. Approximately 20 units can be charged from one drum.

Unusual feature of the board is its arrangement for purging refrigerant from the compressors and expelling it to the outside, rather than allowing it to escape in the shop.

Duplex Board



Compressors which are found to have seal leaks are attached to a vacuum pump arrangement on the board, and the gas is purged and expelled to the roof. An exhaust fan, also controlled from the board, pulls out any gas fumes which might have escaped into the shop.

The board has been particularly valuable, says Mr. Romaine, in working with sealed condensing units, a section of the company's servicing duties which is growing fast.

Use of such an arrangement also saves gauges, since they are attached to the board and don't have to be put on the machine and taken off, with the chance of their being dropped—and ruined—at every handling. On this count alone, the board has been a money-saver for the company.

Also saved is the service man's time, for the units, attached to the small refrigerators beneath them, operate just as they would in the home, and require only an occasional casual inspection by the service man.

Aminco Gives Answers To Questions on Use Of Oil Separators

DETROIT—To help clear up some of the confusion that exists in the minds of service men regarding the value and possibilities of using oil separators on some of their day-to-day jobs, American Injector Co. has issued a set of "questions and answers" covering salient points as to where these products may best be used, and the job they are designed to accomplish.

Complete list of "questions and answers" follows:

1. Question: When or where should oil separators be used?

Answer: On all low-temperature work, especially where the oil is held over in the evaporator. This condition results in the dangerous lowering of the oil level, causing burned out compressors. The installation of an oil separator between the compressor discharge and the condenser traps the oil and returns it to the crankcase, keeping the rest of the system free from oil and assuring a correct oil level within the crankcase at all times.

The performance of any unit is improved, due to the absence of oil from the liquid, increasing the efficiency both by allowing a full volume of expandable liquid to go to the coils and by eliminating the insulating effect which a film of oil on the walls of a coil presents.

Wherever oil slugging occurs and whenever the oil level in a crankcase becomes lowered during operation, an oil separator will remove the objectionable and dangerous carry-over of oil which these symptoms indicate.

2. Question: Why does Aminco use electrical welding on oil separators?

Answer: These appliances are subject to expansion and contraction during the complete cycle of the unit, and since the rate of expansion of the weld and the metals welded is the same on electric welds, these joints remain gas tight indefinitely.

3. Question: Of what value is insulation on the shell?

Answer: In some installations there is a possibility of the shell wall being chilled, due to drafts or air conditions. This chilling then results in condensation of the gases, which will cause return of refrigerant to the crankcase with the oil. The insulation retains the heat within the shell by preventing loss of heat by convection.

4. Question: Does the use of a coil extending below the oil level, and carrying the gases through it, eliminate the need of insulation by boiling the refrigerant out of the oil?

Answer: No. Over a year ago, we experimented along that line and found that it was of no value, due to the fact that the shell wall could still be chilled, and that, during the off cycle, refrigerant would be condensed in sufficient quantity to require far more heat than could be supplied by the coil and so would still go over to the crankcase.

Further, it was found that the coil caused a slight refrigerating effect, in that, as some of the refrigerant boiled off, it chilled the upper surface of the oil, which in turn condensed more refrigerant, resulting in the job "chasing its tail."

These results convinced us that we must keep the shell wall above the condensing temperature of the gas, and also that this must be done not only during the running cycle but, even more important, during the off cycle. Obviously a heater coil could only function during running time, and insulation of the shell was the only means by which the temperature within the shell could be maintained at all times.

5. Question: What form of insulation do you use?

Answer: Asbestos sheet wound around the shell. This is thoroughly water proofed before application and finally painted with aluminum paint for further protection. Water proofing is essential. An insulation which can absorb moisture will be of no value since it will add to the chilling of the shell. All Aminco oil separators are given a protective coat of enamel before the insulation is applied, this together with the water proofed asbestos and final aluminum painting removes the possibility of external influences on the shell.

6. Question: What kind of baffles do you use?

Answer: A spirally wound screen at the inlet and outlet with sheet-brass baffles between them so arranged that the gases must change direction at least 12 times in passing through the separator. Tests have shown complete separation results from this form of baffling. These baffles eliminate needle troubles which were caused by chips from copper wool and similar forms of baffles.

7. Question: Does the oil separator do anything besides keep the oil in the crankcase?

Answer: Yes, it also removes wax from the oil and traps it within the shell, thus removing a source of much expansion valve trouble. It also removes entrained moisture from the oil and allows it to settle to the bottom of the shell, where it is permanently out of circulation, and so reduces the formation of hard carbon. Driers will not remove moisture entrained in the oil.

PROTECT THE SYSTEM

—with IMPERIAL dehydrators

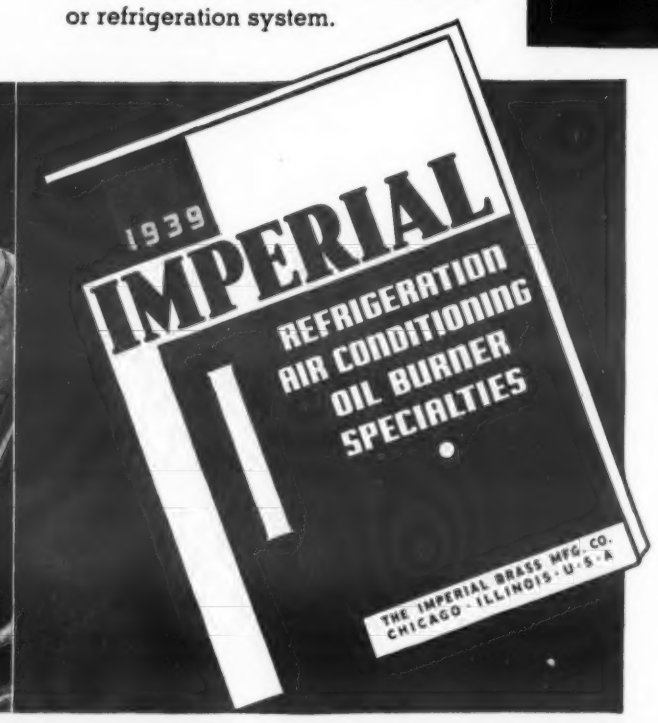
● Moisture in refrigerant is such a constant source of trouble that Imperial Dehydrators have become an important protective device in refrigeration service work. The experience of thousands of service men has shown that the Imperial line covers every type of dehydrator required for either temporary or permanent installation.

—with IMPERIAL strainers

● Every trace of scale, compressor chips or dirt in the oil will be removed with Imperial strainers. They are available in various types to meet the requirements of any layout and are regularly used by service men everywhere as inexpensive protection for the air conditioning or refrigeration system.

—with IMPERIAL testing equipment

● To avoid any accidents during charging, purging and testing it is extremely important to follow the latest practice in this work. Several Imperial developments have eliminated many of the hazards encountered. Charging lines that will stand up under hard usage, service valve kits and the new Hi-Lo charging and testing units have played an important part in speeding up this phase of service work and in reducing the possibility of trouble



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Selling Locker Plants

Star Salesman Tells How He Sold 26 Plants In Territory of 22 Towns

By Wilson L. Taylor

SLAYTON, Minn. — Rising far above all salesmen who must be prodded to action by quotas, bonuses, and the like is that almost unique type of man who simply sets out to sell all prospects in his territory—and succeeds. Such a man is Ralph C. Larson of Slayton. During the past year—his first year as a locker plant salesman—he sold more plants than there were towns of any size in his territory.

Larson's territory included 22 towns situated in the extreme southwest corner of Minnesota. Yet in one year he has sold 26 locker plants, with a total capacity of more than 4,000 lockers. Half his sales have been in towns with populations of less than five hundred.

For the size of his territory and the short time he has been working it, Larson's results must have grabbed him down some sort of an all-time record. Judging by his appearance, he's only about thirty years old. Add to that the fact that he was doing much pioneering, only a few plants having been established in his territory more than a year ago.

Of paramount interest, of course, is how Larson does it. Concerning this point, he makes no claim to any training in the art of hypnotism. He believes' first of all, in the "community value" of the locker plant.

FURNISH DEFINITE PROOF

Armed with a sales kit filled with trade journals, university bulletins, government publications, and other printed matter indicating the general acceptance of the refrigerated locker idea and proving its profit possibilities, he approaches the prospect.

The first step, he says, is to furnish the prospect definite proof "that this business is good for him and also for his fellow businessmen and the community in general."

"Proofs" include data on plants already operating successfully and the statements of county agents, home advisers, departments of agriculture, trade journal surveys, and university research men. In this regard Larson says:

'SIMPLY COMMON SENSE'

"It has been my experience that selling locker plants is simply the application of common sense."

Not an engineer himself, Larson says that he leans heavily on information and help supplied him by Delco-Frigidaire and by Master Refrigerated Locker Systems Inc. of Sioux City, Iowa, the manufacturer of the lockers he sells.

Taking a grocer as a sample of the average prospective buyer, Larson listed four of the "chief interests in life" of such a prospect as follows: 1. A profitable permanent investment, 2. Any operation that will insure greater traffic through his store and thereby expose more customers to his merchandise, 3. A service that will hold new customers as permanent patrons, and 4. Any contribution he can make to his community which will increase the savings, better living conditions, or increase the health and happiness of his friends and neighbors.

RENTERS CAN SAVE

Larson argues that locker use "actually can save" from $50 to $100 a year for the average family, and from $5,000 to $30,000 a year to the community served by a plant.

After selling the worthwhileness of the locker idea to the prospect, Larson's second step is to convince him that he represents manufacturers and distributors who have passed the experimental stage, and make equipment that experience has proved good.

The prospect, in other words, must not be allowed to think that his locker installation will be in the same class as a guinea pig is in the laboratory.

Having progressed so far with the prospect, the salesman's last step is to discuss the plant itself, its capacity, and the space it will require.

One plant that loses money can sour chances of selling in towns anywhere near it, and for that reason Larson let drop these words of warning:

KEEPS THEM SMALL

"Our plants have been successful because one of our chief policies is not to build them too large. Never should a plant be larger than is sufficient to serve the individual community. I would much rather sell a 150-locker plant that will run 90% to 100% occupancy, than a 300-locker one that would run only 60% full."

Plant success, Larson said, is insured in other ways also. The purchaser is taught the community value of his plant, how to explain that value to each patron, how to explain the advantages of quick freezing, proper humidities, and correct temperatures, how to handle patrons in other ways, how to take care of various products and choose wrapping paper, and (perhaps most important) how to permanently publicize the plant and its services.

In the long run, such help to plant owners, Larson says, is quite as necessary as selling the equipment in the first place. He inferred that making those plants already sold be successful reduces pioneering, other prospects selling themselves on the locker idea when they hear of the success of locker owners.

Permanent publicity is obtained by newspaper advertising, direct-mail, and the use of motion picture trailers.

'TOUGH' PROSPECTS

Larson persuades "tough" prospects by a sort of pre-publicity campaign which E. J. Gustafson Co. of Slayton, for which he now is sales engineer, offers free.

A proposition is put to the "how do I know for sure that I can rent enough lockers to make any money?" type of prospect, his attitude being that he would buy if he could be sure of a profitable investment. He has to be shown. Here's how Larson "shows" him.

Suppose Mr. Tough Prospect is a grocer. The salesman hopes to sell him a 100-locker installation for the rear of the store. (The salesman, however, will advise that space for 150 lockers be allowed—just in case the original installation should prove too small.)

Larson offers to put on a free advertising campaign in the community, the object being to get a certain percentage of the potential lockers rented for a whole year in advance.

The prospect, however, must agree in advance and in writing that, if the percentage is reached within a certain time, he will install the plant. The percentage may be 50, even 75.

A campaign follows during which circulars are placed in all rural route post boxes and stories and half-page ads with cuts are run in the community's newspaper. If the locker fee has been set at $10 a year, that amount is asked as a down payment from each propective locker renter.

All checks are placed in escrow, in the keeping of a third party, the understanding being that they will be destroyed or returned if the plant is not installed. The checks are not cashed until the plant opens for business. Special checks for the purpose are provided by Master Refrigerated Locker Systems Inc. to its dealers at low quantity prices.

FIGURING INTEREST

This manner of determining the community interest in the project is "common practice," Larson says. "We usually figure about twice as much capacity as the results of a two-week campaign indicate. . . . True, we sometimes get the plants too small, but it is always better to undersell than to oversell."

Judging from Larson's sales record, such campaigns have proved extremely successful. The job, of course, is engineered and a price per locker for the installation agreed on before the campaign.

Ralph Larson's career as a locker salesman began in the spring of 1938 after he attended a one-day school for locker dealers held in Sioux City by D. K. Baxter Co., Frigidaire distributor. For several years previous he had been selling household and commercial refrigeration equipment for the Slayton firm.

His territory, as has been pointed out, contained 22 towns. Before the fiscal year was out he practically had worked himself out of a job. Recently he was granted more territory than that covered by the Slayton firm, by the Frigidaire district division at St. Paul. That's how he found opportunity to sell the last four plants.

Most of Larson's plants have included from 100 to 200 lockers. Only one of those towns in which he sold has a population of 4,000. The two next highest in population are 1,388 and 1,000.

Nine of the remaining communities range from 535 to 905, and the other 14 have less than 500 inhabitants. Six of those have populations of less than 300. Two actually have less than 100, the existance of the plant depending to a large extent on the interest of neighboring farmers.

Growing slightly philosophical about his profession, Larson says:

"A locker plant sale is more profitable to its patrons than to the agency that sells it. When I sell one of these fine small jobs I can really feel I have done something to contribute toward better living at lower cost. . . . The tremendous growth of this industry is based on only one fact, that fact being that refrigerated locker usage is profitable for every participant in the operation, from the manufacturer to the consumer."

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STAINLESS STEEL available in all models—inside and out; or in combination with gleaming white porcelain.
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Commercial Installations

Engineer Solves Problem of Operating 5 Cooling Devices Off One Compressor

By Phil B. Redeker

MOLINE, Ill.—If you had an installation in which the following equipment—

A model 25B-3W Temprite cooler serving three beer taps and one water tap;

A forced-draft commercial evaporator;

A 280-cube icemaker (set for a four-hour freezing time);

An eight-case wet-storage type bottle cooler;

And a front bar section for bottled goods and soda water

—were to operate off one compressor, how would you hook up the job, and what kind of controls and valves would you use?

That's the problem that confronted Dale Yapp, installation engineer for the Moline Consumers Co., Carrier dealer here, when the firm sold a job with the equipment listed above to Casey's, a tavern in Moline.

Here's how he hooked it up:

The icemaker demanding the lowest temperatures, the machine is operated by a pressure control on the line from the icemaker, with below-freezing cut-in, the actual setting being a cut-in point at 17 lbs. (methyl chloride is the refrigerant used) and a cut-out of 3 lbs.

The model 1402 Carrier "cold diffuser" is used in a room in which the kegs of beer are precooled, and in which some food is stored. Temperature specified to be maintained in this room is 45° F.

A snap-action valve is used to control this unit, with a cut-in at 30 lbs. pressure and a cut-out at 10 lbs.

On the Temprite cooler a back-pressure valve is used.

Constant-pressure valves maintain proper temperatures for the bottled beverage goods in the wet-storage bottle cooler and in the front bar section. (These are separate units.)

A check valve is placed in the suction line from the icemaker to keep the hot gas from the higher-temperature evaporators from backing up into the icemaker.

As may be seen from the picture, gang manifolds with individual hand valves are used to enable the operator or service man to shut off both the liquid and suction lines from any one piece of equipment without disturbing the operation of the others.

Each valve handle is lettered with the name of equipment on which it operates.

As can also be noticed, an oil separator is used on this job.

Moline Consumers refrigeration department thinks the job is a model one, and is using it as a "show" job on other prospects.

Hookup For Multiple-Temperature Installation

Left: Compressor with oil separator. Seen above are the gang manifolds with hand valves to permit shutting off one piece of equipment without disturbing operation of others. Right: Beer being pre-cooled. Icemaker and forced-draft evaporator are shown in the background.

350 Locker Plants Using Cold Plates, Dole Reports

CHICAGO—More than 350 refrigerated locker plants are now using DoleCo vacuum cold plates in their sharp-freeze rooms and locker departments, reports E. J. Tweed, president and general manager of Dole Refrigerating Co.

Plates are used as shelves in the sharp-freeze rooms, and are hung in batteries of five or six plates from 9 to 12 feet long in the locker room, he reports.

Dole recently has issued a booklet, titled "Going to Town," which covers the refrigerated locker problem and contains considerable information on this subject. Copies are obtainable from the company.

Raleigh, N. C. Westinghouse Supply Host To Dealers

GOLDSBORO, N. .C.—Westinghouse Supply Co. of Raleigh (N. C.) recently held a meeting here for dealers throughout the eastern part of the state. George Parker, in whose store the meeting was held, acted as host.

Walk-In Coolers Built To Resemble Cottages Attract Customers & Keep Produce Fresh

DENVER, Colo.—Walk-in refrigerators, always an established part of the "back-room" equipment of fruit and vegetable markets, have come into important "front-room" use in three produce stands in the Colfax Public Market here, where they have proved real sales-stimulators.

Built to resemble small cottages, with white walls, green trim, and attractive roof and windows, the walk-in units attract shoppers because of their unusual design, and at the same time provide display facilities in addition to their value in keeping produce fresh and saleable.

50-CASE CAPACITY

Measuring about 10 x 15 feet, the refrigerators have a storage capacity of about 50 cases. Temperatures of about 40° usually are held in the boxes, with the humidities varied to meet the changing requirements of different products.

The humidity requirement of fruits and vegetables presents a specialized refrigeration problem. It isn't enough for produce to be kept cool. It must also be kept fairly moist if it is to be preserved to best possible advantage. That's why it isn't generally practical to store this merchandise with meats or other perishables.

LOSS ABSORBS PROFIT

Any experienced produce operator knows that his most difficult problem lies in preventing shrinkage. When fruits and vegetables are not stored and displayed under the right conditions, they shrivel up. Even though they don't actually spoil, their weight drops and they require trimming. Such loss, known in the business as shrinkage, often absorbs much of the operator's profit—sometimes all of it.

So refrigeration facilities which meet that difficulty represent a very important service to the produce industry.

The walk-in produce boxes in the Colfax market have reduced shrinkage anywhere from 25 to 40% for their users. They serve the dual purpose of providing ideal storage conditions and making possible the precooling of produce in such a way that it stands up better when put out on display. Shrinkage amounts to almost nothing as long as produce is left in the storage refrigerator. And, due to efficient precooling and use of the display sprinkler system, it holds up in perfect condition for a full day after being taken out.

IDEAL STORAGE

In the average produce market not having such facilities, stock left over at night has to be "put to bed" in a makeshift manner, certain items usually being laid out on damp sacks. Here, with the aid of modern walk-in refrigerators, such stock is placed in storage under ideal conditions until the next morning.

In the same way that they permit efficient night storage, these refrigerators provide for unusually profitable buying. Most produce dealers often have to pass up good buys on quantity lots because they are not equipped to hold the stock until it can be sold. The stands having this equipment can always take advantage of favorable market conditions when they come along. Such highly perishable items as raspberries have been held in storage here for as long as nine days—with almost no loss.

COOLED FIRST

It is usually planned to cool produce for about a day in the refrigerator before it is placed on display. This way, the stock has a beautifully crisp, fresh appearance which it retains throughout the day it is offered for sale. That appearance, operators have found, is the biggest single factor in successful merchandising. Customers don't have to be told that the merchandise is fresh.

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Ease of installation is assured because all adjustments are made on accurately graduated visible dials—there are no adjustments to be made on uncalibrated screws by the time-consuming trial-and-error method. These controls are designed to provide maximum quality at a moderate price. Prices are as follows:

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Refrigeration Hookups For Soda Fountains Using Instantaneous Water Coolers

In last week's issue Arch Black and Dean C. Seitz began a description of instantaneous water coolers, showing how they are hooked up in a soda fountain, and discussing their operation. The description of the 1936 Bastian-Blessing fountain is continued in this issue. Figs. 1 and 2 referred to in this instalment may be found in the April 12 issue. This is a continuation of the series on installing and servicing soda fountains, counter-type freezers, and frosted foods cases that is appearing weekly in the NEWS.

By Arch Black and Dean C. Seitz

The Water Refrigeration Circuit

Both the city water and soda water are refrigerated by means of a Frigidaire instantaneous water cooler installed in the right hand rear corner of the bottle storage compartment. This cooler is housed in an insulated metal jacket standing on three rubber legs. The entire cooler with its jacket may be removed by disconnecting the water and refrigerant lines, as illustrated by "C" in the phantom view of Fig. 1 (see April 12 issue). The connections to the instantaneous cooler can be exposed to view by removing the white enamel guard attached to the top of the cooler jacket.

The instantaneous cooler itself consists of two tinned shells between which the city water cooling coil and the soda water cooling coil are run. The city water cooling coil is made of heavily tinned copper and the soda water cooling coil of stainless steel. The stainless steel is marked "SS" on the top of the cooler and the city water cooling coil is marked "CU" on the top of the cooler.

Care must be taken by the installation mechanic to make certain that the incoming soda and city water line are connected to the stainless steel and copper coils, respectively. The space between the two shells of the cooler is completely filled with liquid refrigerant at all times. The level of the liquid refrigerant is controlled by a thermostatic expansion valve.

Referring to the phantom view of Fig. 1, the liquid refrigerant entering the water cooling refrigeration circuit starts at the point marked "In." It passes through the shut-off valve (21) to the shut-off valve (11). From this valve (11) the liquid enters the ¼-in. line (12) which leads to the thermostatic expansion valve (13) located in the jar enclosure.

From the expansion valve (13) the low pressure liquid refrigerant passes through the ⅜-in. line (14) to the instantaneous cooler. The liquid refrigerant enters the bottom of the cooler and the evaporated gas leaves the top of the cooler through the ½-in. suction line (15). The shut-off valve (16) is located in this suction line between the cooler and the pressure regulating valve (17). After passing through the regulating valve (17) the gas passes into the main suction line into the condensing unit.

It should be noted that the connection on the top of the cooler where the ¼-in. line leaves the cooler is not a shut-off valve. It is a by-pass valve to which the standard Frigidaire gauge adaptor assembly may be fitted for reading the pressure inside the cooler. Both shut-off valve (16) and the regulating valve (17) are shown in the end view, Fig. 2 (see April 12 issue).

The thermal bulb of the thermostatic expansion valve (13) is run in an insulated hose through the well, soldered on the inside of the instantaneous cooler shell. A small rubber stopper is fitted around the capillary tubing where this tube enters the bulb well. The purpose of the stopper is to prevent the formation of condensate inside the well.

The purpose of the pressure regulating valve (17) is to prevent the liquid refrigerant inside the cooler shell from reaching a temperature below the freezing point. This valve is known as the Frigidaire model LTV-20. The small adjusting nut on the top of the valve LTV-20 controls the pressure and consequently the temperature at which the valve closes. The valve is so designed that with the adjusting nut screwed completely out, the pressure inside the cooler will be maintained at 32 lbs. This pressure is not sufficiently low to permit the water to freeze when "Freon-12" is used as the refrigerant.

USE OF SURGE TANK

The use of an instantaneous cooler necessitates the use of a surge tank located near the condensing unit and dead ended into the suction line in order to prevent excessive short cycling of the condensing unit. The details of the installation of the surge tank will be given at a later point when a full description of the 1937-1938 fountain will be given.

As an example of the operation of the water refrigeration circuit, assume that the refrigerating condensing unit is not running. Approximately 2½ glasses of water are standing in each coil of the instantaneous cooler refrigerated to a temperature of 38°. Two glasses of city water are now drawn from the draught arm. This permits two fresh glasses of warm water to enter the water cooling coil.

The liquid refrigerant inside the cooler evaporates and builds up a slight pressure, opening the LTV-20 valve. If sufficient pressure has been developed in the suction line and surge tank to start the condensing unit, it will now run. If not, several more glasses of water must be drawn from the instantaneous cooler through the draught arm before the condensing unit will start to remove the evaporated gas which has accumulated in the surge tank. As this process is repeated, the level of the liquid refrigerant in the cooler gradually lowers until the bulb of the thermostatic expansion valve becomes warm enough to open the valve and allow more liquid refrigerant to enter the cooler.

NORMAL OPERATIONS

In normal operations the expansion valve will refill the cooler each time that two or three glasses of water have been withdrawn. The refrigerating machine will remove the evaporated gas from the surge tank as was pointed out in the description of the ice cream refrigerating circuit, the ice cream will receive refrigeration only if it needs it, even though the condensing unit may continue to operate on the water cooling system.

Due to the fact that the instantaneous type of water cooler operates at a relatively high suction pressure, the condensing unit always cools the water first. If sufficient capacity is left over after cooling the water, the ice cream will receive its refrigeration. This means that it is entirely possible to overload the water cooler to such an extent that the ice cream will receive very little refrigeration. For this reason it is very important that the condensing unit recommendations of the manufacturer be followed implicitly.

The amount of water which can be cooled depends more upon the size of the condensing unit than upon any other single factor. Due to the hold-over capacity of the ice cream asphalt jacket as well as that of the ice cream itself, short periods of heavy water demands can be successfully taken care of without any rise in temperature of the ice cream. However, continued heavy water demand for periods exceeding three-quarters of an hour may be permitted only when a separate condensing unit is installed on the instantaneous water cooling circuit.

Jar Enclosure and Bottle Storage Refrigeration Circuit

Referring to Fig. 1, the refrigeration coil of the jar enclosure is labeled "C." Likewise the extension of this coil located under the baffle on the front wall of the bottle storage compartment is labeled "C-C." Actually the cooling in the bottle storage compartment acts as the drier coil for the jar enclosure circuit.

By tracing the liquid line in Fig. 1 as well as in Fig. 2 it is found that the liquid refrigerant enters the shut-off valve (21) and passes into the ¼-in. line (22) to the expansion valve (23). From this expansion valve a ⅜-in. tinned copper expansion coil takes two hairpin loops through the jar enclosure and returns to the bottle storage compartment passing under the removable white enamel baffle at the top left of the compartment. After coiling up the front wall of the bottle storage compartment, the ⅜-in. coil again passes to the rear of the compartment and outside the unit where its suction line (24) is teed into the other suction line.

The bulb of the thermostatic valve (23) is clamped to the bottom turn of the lower hairpin coil on the front wall of the bottle storage compartment. It will be found necessary in operation to throttle or starve this expansion valve to a great extent in order to prevent the refrigerant from pressing back on the suction line.

Before the service engineer performs any service operation on the 1936 Bastian-Blessing fountain just described, it is suggested that he read the following article covering the detailed description of the 1937-1938 Bastian-Blessing soda fountain.

The following article will give detailed instructions on the refrigeration hook-up settings of the various valves and controls which are used. By combining the information which will follow on the 1937-1938 fountains with the information previously given on the Russ 1936 solenoid-controlled soda fountain, the service engineers will be in a position to handle any problems which might arise in the Bastian-Blessing 1936 soda fountain.

(Concluded on Page 29, Column 1)

Instantaneous Cooling In Bastian-Blessing Dry-Type Fountain

The Bastian-Blessing all dry soda fountain refrigeration hook-up for 1937-1938 is illustrated by Fig. 3. The entire system consists of three separate refrigeration circuits, each having its own thermostatic expansion valve.

All of the suction lines are teed together on the outside of the creamer unit and brought to a common connection marked "out." Likewise the three liquid lines are brought to a common inlet marked "in." The exterior connection for the suction line is a ⅝-inch fitting and for the liquid line, a ⅜-inch fitting.

The three thermostatic expansion valves together with the instantaneous water cooler are installed inside the bottle storage compartment. The valves and connections are hidden from view by means of a removable metal partition.

Ice Cream Refrigeration Circuit

The ice cream section of the soda fountain is refrigerated by means of a coil of ⅝-inch diameter copper tubing wrapped around and soldered to the metal lining of the ice cream jacket. The design of this coil is such that a colder temperature will be produced in the brick or packaged compartment than in the bulk section. This coil is embedded in a solidified asphalt emulsion, eliminating the use of brine.

Starting at the inlet, "In," the liquid refrigerant passes through three shut-off valves (5), (14), and (7) to the ¼-inch liquid line (1). This liquid line (1) passes through the heat interchanger (2) and then to the expansion valve (3).

From (3) the refrigerant passes into the ice cream refrigeration coil (A). This refrigeration coil (A) completely encircles the ice cream storage compartment. From the ice

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FITTINGS
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Refrigeration Circuits In Bastian-Blessing Soda Fountains

(*Concluded from Page 28, Column 5*)

cream jacket, the suction line from this coil passes into the bottle storage compartment and enters the heat interchanger. From the heat interchanger the line passes through the check valve (4), and then to the suction line.

It should be noted that the thermal bulb of the expansion valve (3) is inserted in a well in exactly the same manner as the method previously described for the 1936 Bastain-Blessing soda fountain.

The temperature control (6) is an auxiliary electrical control wired in parallel with the low-pressure control which operates the condensing unit (15). The thermal bulb of the temperature control is located in a well installed in the rear wall of the bulk storage compartment.

The temperature control itself is mounted on the end of the creamer unit as illustrated in Fig. 3. A capillary line connects the bulb and the control. This thermal bulb well is located in the bulk ice cream compartment and must be filled with a light refrigeration oil and plugged with a small rubber stopper to prevent ice or water from forming inside the well.

Water Refrigeration Circuit

Both the city water and soda water are refrigerated by means of a Frigidaire instantaneous water cooler which has previously been described in connection with the 1936 Bastian-Blessing soda fountain. This water cooler is installed in the right hand rear corner of the bottle storage compartment (B) shown in Fig. 3.

The connection to the cooler can be exposed to view by removing the porcelain enamel lid fastened to the top of the cooler jacket, and the entire cooler may be removed by disconnecting the water and refrigerant lines.

Referring to Fig. 3, the liquid refrigerant entering the water cooling refrigeration circuit starts at the point marked "In." It passes through the shut-off valve (14) to the shut-off valve (7). From this valve (7) the liquid enters the ¼-inch line (8) which leads to the thermostatic expansion valve (9) located on the top of the instantaneous cooler.

From the thermostatic expansion valve (9) the liquid passes through the ½-inch line (10) to this instantaneous cooler itself. The liquid refrigerant enters the bottom of the cooler and the evaporated gas leaves from the top of the cooler through the ½-inch suction line (11). The shut-off valve (12) is located in this line between the cooler and the pressure regulating valve (13).

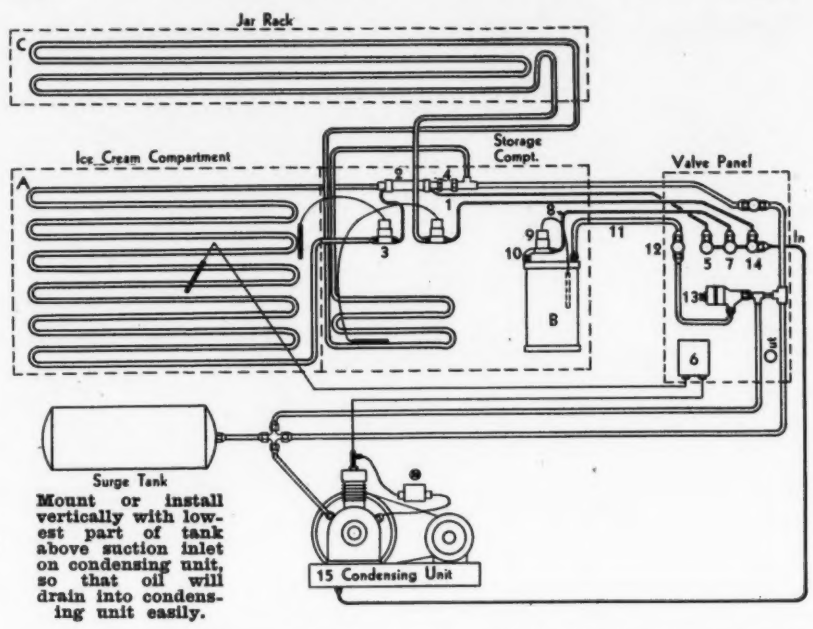
After passing the regulating valve (13) the gas passes into the main suction line through the condensing unit. Both the refrigeration hook-up and the operation of the instantaneous cooler are exactly the same as previously described for the 1936 Bastian-Blessing fountain.

Jar Enclosure and Bottle Storage Refrigeration Circuit

Referring to Fig. 3, the refrigeration coil of the jar enclosure is labeled "C." This drier coil for this circuit is located under the baffle in the front wall of the bottle storage compartment. This hook-up is exactly the same as the hook-up previously described for the 1936 Bastian-Blessing fountain.

Since no operating and servicing details were given for the 1936 model, each valve and control used on the 1937-1938 model will be discussed in sufficient detail to acquaint the service engineer with the problems which may arise.

Fig. 3 — Instantaneous Water Cooler Hookup



Refrigerant circuits and hookup in the 1937-38 Bastian-Blessing soda fountain. Instantaneous water cooler is installed in the right-hand rear corner of the bottle storage compartment (B).

White-Rodgers Introduces Low-Priced Series of Pressure Controls

ST. LOUIS—A new low-priced series of pressure controls with direct-reading dials calibrated to indicate the desired cut-in and cut-out pressures has been announced by White-Rodgers Electric Co. These controls are identified as Series 1530.

On the high side control the recommended pressures for three of the most popular refrigerants are indicated on the dial by the letters F ("Freon"), M (methyl chloride), and S (sulphur dioxide). The low-pressure control has an adjustable differential, the large dial indicating the cut-out pressure and the small dial indicating the differential. Cut-in pressure is obtained by adding these two settings.

These two controls are available separately or enclosed in a single case. They are recommended only for applications where absolutely exact settings are not required. For such installations, White-Rodgers advocates use of its deluxe controls.

Frozen Malted Freezer Announced By Cook

NEW YORK CITY—A new automatic counter freezer for making frozen malted in retail stores has been introduced by Cook Sales Corp. here.

Manufactured for Cook by Mathewson Machine Works, Quincy, Mass., the new "Cook Automatic" freezer unit is a floor-type self-contained machine designed to make ice cream, frosted fruit drinks, and often frozen desserts in addition to frozen malted.

Capacity of the freezer is six quarts, with a production rate of five batches an hour, or 120 individual servings of frozen malted.

Overall dimensions of the freezer are: height, 33½ inches; width, 17 inches; depth, 16 inches.

The Cook Automatic refrigerating equipment includes a ½-hp. Servel compressor, ½-hp. Wagner motor, and a ⅓-hp. motor to drive the dasher.

Standard model is made to operate on 110 or 220-volt alternating current. Direct-current units are available on special order.

Cook Sales Corp. also is selling a "Duo-matic" model with two dashers for making the dessert, each operated by a ⅓-hp. motor. All dimensions and specifications of the Duotherm model are the same as those of the standard model, except that the width of the former is 27 inches as compared with 17 inches.

Capacity of the larger unit is double that of the regular Cook freezer.

Veteran Service Men Open Jobber Store In Fresno

FRESNO, Calif.—Charles G. Bell and G. C. (Doc) Armour have discontinued their refrigeration sales, service, and installation business and have gone into the refrigeration supply jobbing business under the Bell name, with the intention of covering all territory within a 100-mile radius of Fresno.

Both men have had some twelve years of experience in various phases of the refrigeration industry. Mr. Bell has been connected with installation and service work during most of this time, although for the past two years he has operated Frigidaire's local commercial refrigeration dealership. Mr. Armour has been field representative in this territoy for a local wholesaler of refrigeration products for the past four years.

Bastian-Blessing Catalog Describes Perfex Line of Soda Fountains

CHICAGO—A new catalog describing the "Perfex" soda fountains, luncheonettes, and bobtail units has been issued by Bastian-Blessing Co. here.

The Perfex unit comes in 7, 8, and 9-foot lengths, with attached counter and backbar to match. Luncheonettes, equipped with sandwich units are 3 feet longer.

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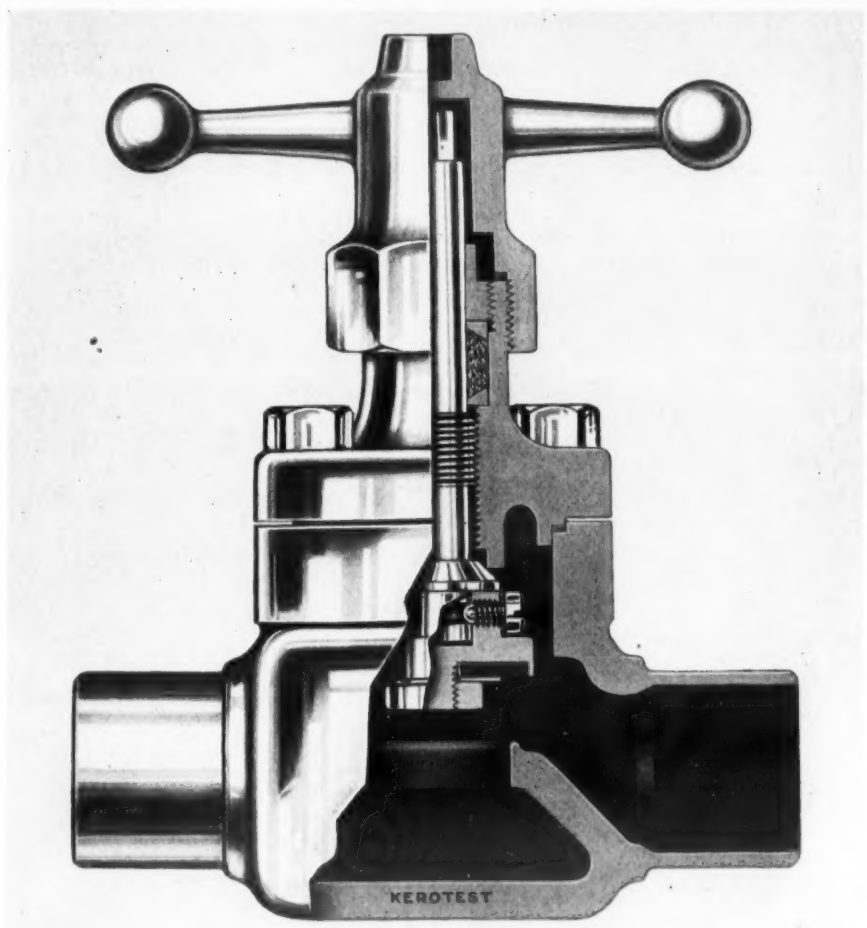

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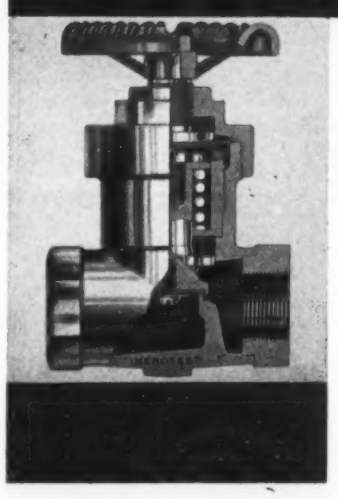

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Write for new circular

JAS. P. MARSH CORP., 2067 Southport Ave., Chicago, Ill.

MARSH *Refrigeration Instruments*

New Commercial Products

Fowler's '2-In-1' Case Uses Dehydrator To Dry Air In Window

AURORA, Ill.—A "two-in-one" display case intended for storage and display of both frozen foods and fresh meat is being produced by Fowler Equipment Co. here.

Outstanding feature of this case, designed by Emory S. Fowler, head of the company, is a system of dehydration said to keep the air between the various thicknesses of glass in the display case window free from moisture, thus eliminating fogging, freezing, and breaking of the glasses.

This dehydrator consists of a section of copper refrigerating tubing installed between the panes of glass and connected in parallel to the refrigeration coils of the case. The temperature of the dehydrator tube, it is said, attracts any moisture that may penetrate into the sealed compartments between the glasses and deposits it on the condenser strip installed in the sill below the window of the case. Drain facilities are provided to relieve any water accumulation.

This dehydration process is fully covered by patents, Mr. Fowler declares. Several display case manufacturers, he says, have applied for permission to use the process in their own cases on a royalty basis.

The Fowler company started experimenting with the idea of a combination case more than a year ago. Several such units have already been installed and are reported to be operating satisfactorily.

Prime advantage of such a combination unit, its designer points out, is that it saves floor space—an important consideration for many grocery store and meat market operators.

Holcomb & Hoke Claims New Cooling Method For Vegetable Case

INDIANAPOLIS—A new vegetable display case known as the "Pro-du-seller," a new "Champion" line of display cases, the recurrent "Mastercase," and the 1939 line of FireTender automatic stokers were introduced to the national distributing organization of Holcomb & Hoke Mfg. Co. recently when that company held its convention here.

The first day's meeting was devoted to the stoker line, while sessions on the second day centered on the company's refrigeration equipment. Business meetings were conducted at the Holcomb & Hoke factory by Fred Hoke, vice president; Frank Hoke, general manager; and G. S. Peters, general sales manager. A banquet at the Indianapolis Athletic Club concluded the convention.

MASTERCASE LEADS LINE

The Mastercase, built in 8, 10, 12, and 14-foot lengths, again leads the company's commercial refrigeration line, but the new vegetable case was the "big surprise" of the meeting. This unit is said to employ a new method of refrigeration which "literally wraps the contents of the case in a blanket of cold." The Champion case, with standard and deluxe models ranging from 6½ to 14 feet in length, also was shown for the first time to distributors at this meeting.

Still another item in Holcomb & Hoke's new product parade was an illuminated "Sales Increaser" sign. Designed to be mounted just above the display case, this processed celluloid sign has a black background with transparent lettering through which the light shines.

3 New Double-Duty Cases Introduced By Seeger

ST. PAUL—Three models comprise the new Series 24 line of display cases recently introduced by Seeger Refrigerator Co. here.

Made in stock sizes of six, eight, and 10 feet in length, the new Seeger cabinets are produced complete with refrigeration coils and electric lights in storage compartment at respective list prices of $450, $550, and $670.

The double duty cases feature double, overhead, finned type coils designed to create a down draft directed away from the triple-pane glass front and the rear sliding doors. Coils are suitable for "Freon-12," methyl chloride, and sulphur dioxide refrigerants, and ammonia coils can be furnished at an additional cost.

PORCELAIN EXTERIOR

One-piece exterior cabinet shell is finished in Seeger-made porcelain on top and front, and white Dulux on back and ends. One-piece interior shell is finished in white Dulux with black porcelain bottom pan. Porcelain-finished light reflector is built as a solid unit with the top of the case.

Shelves inside the cabinet are extra-heavy bar type with tinned finish, mezzanine shelf being fitted with a white porcelain front edge to add to the cabinet's attractiveness.

THREE GLASS THICKNESSES

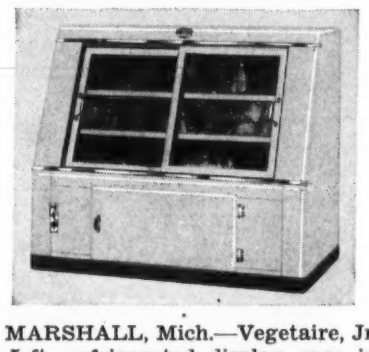
Display glass front of the cabinet has three thicknesses of clear-colorless glass fitted with Seeger's patented anti-frosting ventilation.

Cabinets are insulated with 3 inches of low density rock wool. In each case there is a new type drain with removable stainless steel strainer. Brass drain trap is located on the outside back wall of the case.

"Loc-i-tite" sliding doors are of molded hard rubber moving on stainless steel rollers in one-piece hard rubber upper and lower tracks. Each case has two doors.

Platters, work boards, scale shelves, and counter extensions or scale stands are extra equipment furnished at additional cost.

5-Ft. Vegetaire Added To Sherer-Gillett Line



MARSHALL, Mich.—Vegetaire, Jr., a 5-ft. refrigerated display case intended to satisfy the requirements of such small-volume perishable food outlets as the little neighborhood markets and resort stores, has been added to the regular Vegetaire line manufactured by Sherer-Gillett Co. here.

This new unit, known as the 1800 series, is equipped with three shelves for display purposes and has a roomy compartment in its base for storage of surplus produce.

Sherer-Gillett also has announced to its distributors a complete new line of heavy-duty commercial compressors bearing the company name and ranging in size from ¼-hp. units for self-contained installations to 15-hp. jobs. All are for use with "Freon" refrigerant.

Cutaway of Savage Ice Cream Cabinet

• • •

Savage Arms Ice Cream Cabinet Is Designed For Easy Servicing; 11 Models In Line

UTICA, N. Y.—Designed for easy servicing in either field or shop is the new line of ice cream cabinets just announced by the refrigeration division of Savage Arms Corp. here.

Eleven new cabinets are in the line, which ranges in size from a compact two-hole single row model to a large 12-hole double-row cabinet with 55-gallon capacity.

Features claimed for the new units, and pointed out in the "X-ray" photo above, are:

1. One-piece stainless steel top is removable, to facilitate repair and refinishing.

2. Flip-type lids are made of stainless steel top and bottom with heavy cork insulation in between. Condensation and resulting corrosion is prevented, it is claimed.

3. One-piece mortised sub-top is removable for servicing purposes, yet at the same time is rigidly integrated with the cabinet by precision mortising into sides and ends.

4. Entire low side of the cabinet, involving both liner and evaporator, is removable.

5. Four-inch thick cork insulation is precision fitted into the frame.

6. Frame is fabricated of heavy gauge steel, to withstand rough treatment.

7. Removable side and end panels are bonderized and finished in hard-baked enamel.

8. Stamped corner strip, also removable, is designed to add to cabinet appearance.

9. Units are powered by a twin-cylinder compressor, which is claimed to be well balanced and to result in low power consumption.

10. Use of patented Savage jelly hold-over is claimed to cut ice cream losses, prevent short cycling, and reduce compressor wear.

11. Compressor is accessible on end or either side through service grilles. Expansion valve, temperature control, and all mechanical parts are grouped within this compartment.

12. Units have an automatic safety signal, which flashes on when temperature rises 3° above normal range.

Westinghouse Designs New 'Counter' Beverage Unit

MANSFIELD, Ohio—New on the market is an "under-the-counter" bottled beverage cooler designed by Westinghouse for use in refreshment stands, drug stores, restaurants and clubs, and other places where space savings and convenience are desirable.

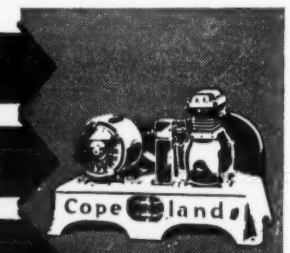
Called the "Duo-Cold" cooler, the unit is self-contained and ready to plug in and operate. Power is supplied by a hermetically sealed refrigerating unit, with automatic defrosting. Exterior is of porcelain enamel, and stainless steel is used for trim and top rail. Interior is of galvanized iron. Lengths of the units range from 45 to 72 inches.

Carrier Corp. Introduces Water Cooler Unit

SYRACUSE, N. Y.—A new water cooler, built with the same type condensing unit used in large air-conditioning installations, has been placed on the market by Carrier Corp. Featuring a water-regulating valve said to automatically eliminate stream fluctuation and another valve to control water temperature, this new unit is only 15½ inches square and is finished in bronze.

A shell-and-coil type precooler is used to increase capacity and reduce operating cost. Provision for a glass and bottle filler is included, as is a connection for installation of a cold water line to a separate remote fountain.

Capacity of the unit, based on Nema standards of 60% waste, is 10 gal. per hour.

Outsell all others with
Copeland
Commercial Refrigeration
The efficiency, economy and dependability of all Copeland Commercial Units make prospects easy to find, make sales easy to close. Our twenty years of leadership in commercial refrigeration are evident in every unit.
HIGHEST EFFICIENCY!
LOWEST OPERATING COST!
LONGEST TROUBLE-FREE SERVICE!


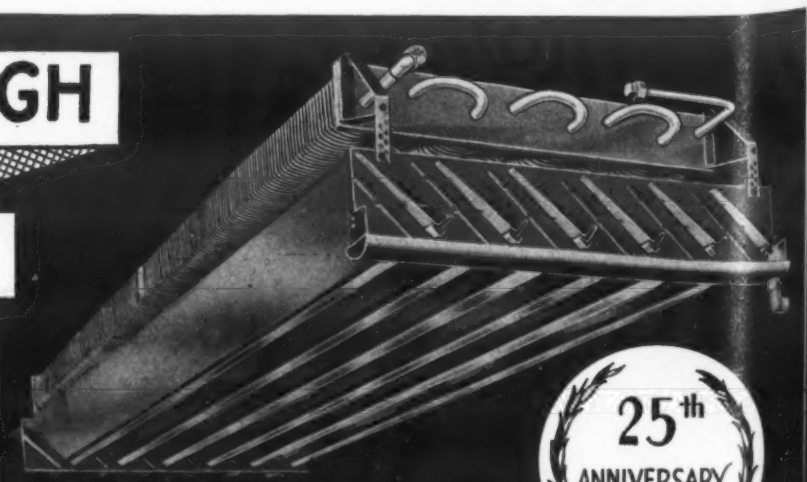
COPELAND REFRIGERATION CORPORATION, Sidney, Ohio
INVESTIGATE COPELANDS COMPLETE LINE OF HOUSEHOLD REFRIGERATORS AND WATER COOLERS

NEW NEW NEW

Receiver Tanks • Activated Driers • Mufflers
FOR REFRIGERATION USE
IN these three refrigeration parts, Weatherhead announces units that are *absolutely new*—units that have been welcomed everywhere in the refrigeration field.
These all-steel, brazed parts are constructed to the high standards of Weatherhead refrigeration valves and fittings. Write for complete details.
THE WEATHERHEAD CO., Cleveland, Ohio
WEATHERHEAD
Refrigeration Valves and Fittings

BLOWER WHEELS

"HAVE CLARAGE MAKE THEM!"
COMPLETE ASSEMBLIES
Every year we ship to builders of air conditioning units thousands upon thousands of Clarage Blower Wheels and Assemblies.
This smaller equipment is designed with the same skill characteristic of the larger Clarage apparatus—just as carefully fabricated and tested.
And we have sizes to meet ALL REQUIREMENTS—with slow speed operation insuring SILENT PERFORMANCE.
May we have your next inquiry?
CLARAGE FAN COMPANY
KALAMAZOO, MICHIGAN
Sales Offices in All Principal Cities

TRIPLE-TROUGH
COOLERS
by KRAMER
YEARS IN ADVANCE

25th ANNIVERSARY
KRAMER TRENTON AUTO RADIATOR WORKS TRENTON, N. J.

3-Hp. Unit Redesigned By Universal Cooler

DETROIT — A completely redesigned commercial condensing unit of 3-hp. capacity has been added to its line for 1939 by Universal Cooler Corp.

Known as model W-300, the unit has a three-cylinder compressor having a large, low velocity suction chamber, which is said to cause the entrained oil in the suction gas to precipitate and return to the crankcase. A large fine-mesh screen, enclosed in the suction chamber, removes any foreign material from the suction gas, protecting compressor and expansion valves.

Both suction and discharge valves are located in a single valve plate, and are claimed to provide efficient operation. Crankshaft is counterbalanced, and connection rods are diamond bored, to assure freedom from friction and vibration.

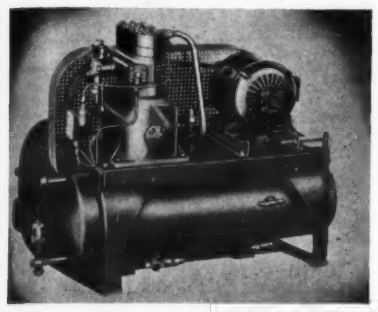
Compressor seal is of the outside revolving type, and is claimed to be cool-running at all times. Bearing surface of the seal is of hardened, ground, and lapped forged steel. Condenser is of the shell-and-finned coil type, and is said to result in low head pressures, low water pressure drop, and large pump-down capacity.

Two test cocks permit determination of the liquid level in the condenser, and water can be completely drained to prevent damage from freezing. Also included is a high-pressure relief valve with an outside vent connection.

Compressor base is constructed of heavy cast-iron legs, bolted to sturdy angle iron members. Channel motor supports with jack-screw adjustments allow the use of a variety of motor frame sizes, and provide for adjustment of belt tension and pulley alignment.

Large compressor displacement is claimed to result in low operating speeds, and to assure long life, high capacity, and low power consumption.

New Commercial Unit



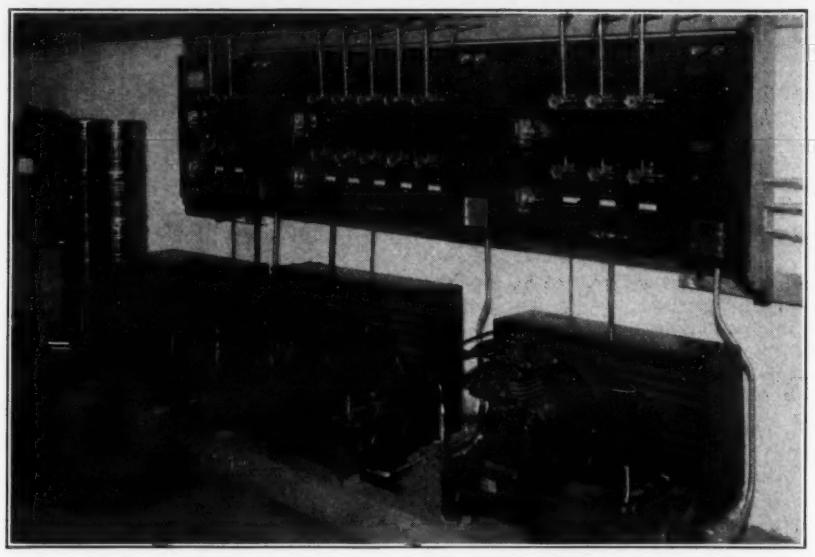
Completely redesigned, this 3-hp. condensing unit has been added to Universal Cooler's 1939 line.

Reese Re-elected President Of United Refrigeration

COLUMBUS, Ohio — Oscar B. Reese was re-elected president of the United Refrigeration Service, Inc., 22 W. Naghten St. at the company's annual meeting here.

Other officers are William T. Cannon, vice president; Paul A. Oberly, secretary and treasurer; and Claude K. Wetzel, John R. Griffith, and Ernest E. Eggleston, directors.

Hard-Drawn Copper Tubing on the Small Job



Three-compressor hook-up in the installation made by Legasse & Harris Refrigeration Corp., Cambridge, Mass., in the newest store of the Brigham's chain in Boston. More than 600 feet of hard-drawn copper tubing and 200 sweat fittings were used in this job, first of the company's smaller installations to use these materials exclusively.

• • •

Legasse & Harris Complete First Small Job Using Hard-Drawn Tubing

BOSTON—First of the smaller installations made by Legasse & Harris Refrigeration Corp. in which hard-drawn copper tubing and sweat fittings are used exclusively is in Brigham's new store at 174 Tremont St. here.

Brigham's operate a chain of ice cream and candy stores in metropolitan Boston, and have been Legasse & Harris customers ever since 1932, when the Kelvinator commercial distributor made the first complete installation in its store at 1706 Beacon St., Brookline.

Equipment on the job consists of the following:

Two Temprite models M25B2, operated by one model F475 ¾-hp. Kelvinator air-cooled compressor. These Temprites cool the soda water and drinking water for the soda fountains.

Three ice cream sections in as many soda fountains, operated by a model FL375 ¾-hp. air-cooled Kelvinator unit.

Three syrup rails in the three fountains, two salad sections, and a model 30 Seeger reach-in refrigerator, operated by a 1-hp. model K3100 air-cooled compressor.

Two 12-hole Kelvinator portable ice cream cabinets also are included in the installation.

Feature of the system, as stated above, is that it is the first of the small installations made by Legasse & Harris in which hard-drawn copper tubing and sweat fittings are used exclusively. Approximately 600 feet of tubing is used in the system, and there are more than 200 sweat joints.

Advantage of this type of installation, according to Charles C. E. Harris of the distributorship, is that it eliminates the possibilities of leaks.

Use of this method, Mr. Harris said, cuts the number of joints required in the system in half, and eliminates just that many possible sources of leaks, and possible service trouble, later.

'Strip-Tease' Features Kelvinator Catalog

DETROIT—A complete line catalog, featuring one "strip tease" unit, and an accordion-folded strip of nine picture postcards are being used by Kelvinator Corp. to provote its "Silver Jubilee" ice cream cabinets.

Immediately beneath the cover of the catalog is not the regular full-size catalog page expected, but rather a "surprise package" in the form of a cut-out picture of one of the Silver Jubilee cabinets, just as it might look on the sales floor or in actual operation.

Turning this cabinet as one would a page, reveals a similar cut-out unit directly beneath the first. But already the "stripping" process has begun. This second cabinet photograph is a cutaway to show a little more intimate detail of the unit's construction. Third and last cut-out in the series shows "the works," for it is cut away even more than the second, offering a real "look in" on the cabinet's advertised features.

Remainder of the catalog follows conventional practice. Pages of standard size and shape are used, the various units are pictured, and their specifications listed. Eight ice cream cabinets, varying in size from 1 to 12 holes, and one frozen foods chest compose the company's line this year.

Reminiscent of vacation days is the post card series, except that in place of a wooded lake or a sandy beach each card pictures one of the ice cream cabinet models.

Unique feature of this nine-card strip is that each card may be detached and mailed to anyone interested in the particular model shown in that illustration. Backs of the photo-cards are printed in regular postal form, ready for mailing, except that instead of the vacationer's "Having wonderful time . . . ," the message side of each card gives specifications of the unit pictured on the front.

Westinghouse Drive on 'Plug-Ins' Started

MANSFIELD, Ohio—Special spring sales campaign has been started by Westinghouse's commercial refrigeration department in an effort to enable dealers and salesmen to "Plug-Into Profits" with the company's line of packaged commercial equipment.

To help dealers get started early with commercial sales, the company is offering a free mailing to their 20 best prospects for display cases and reach-in coolers, beverage coolers, water coolers, and milk coolers. Each mailing will be personalized by tieing both the prospect's and dealer's name into each mailing piece.

The special "spring push" also offers dealers an extra reward for quick sales action. For the first two "plug-in" commercial appliances each dealer sells between April 1 and June 15, the company will provide 250 promotional pieces with "four-point" personalization.

Each of these folders, for mailing to the dealer's hottest prospects, will include his picture, a picture of his store, a testimonial letter or statement from one of his purchasers, and a picture of the appliance referred to in the testimonial.

To prepare for extra business through the "plug-in" campaign, the company is urging dealers to tell prospects the packaged commercial sales story, and to maintain a full-line display in their showrooms, or to arrange with their distributor to bring their prospects into his headquarters to inspect the appliances.

A SIGN OF SUPERIOR SERVICE

ANSUL JOBBER
REFRIGERATION PARTS AND SUPPLIES

• Yes, and more than that: It's a sign of an outstanding businessman and a good fellow. Our pride in the Ansul distributive organization is equalled only by our pride in Ansul products. Let this organization begin serving you now.

ANSUL SULPHUR DIOXIDE
METHYL CHLORIDE

ANSUL CHEMICAL CO., MARINETTE, WISCONSIN
AC-11-8

There Is An Ansul Jobber Near You

"THAT'S WHAT I WANTED TO SEE, YOUNG MAN!"

DU PONT REG. U.S. PAT. OFF. DULUX REG. U.S. PAT. OFF. FINISH ON EXTERIOR

WOMEN know about DULUX. They've heard of its brilliant whiteness, its ease of cleaning, its amazing resistance to chipping and cracking, grease and dirt. They know DULUX *stays* sparkling white.

That's why so many dealers make it a point to feature the blue-and-silver DULUX seal on the refrigerators they sell. It instantly tells a woman prospect that she's getting a refrigerator with the extra-value finish she wants.

You'll find it pays to feature DULUX in your selling. It's an *additional* factor that can make a sale just that much easier. E. I. du Pont de Nemours & Co., Inc., Finishes Division, Wilmington, Delaware.

REMEMBER: *There must be some good reason why 80% of all modern refrigerator manufacturers use DULUX!*

DU PONT DULUX *The Modern Refrigerator Finish*
REG. U. S. PAT. OFF.

Promoting Locker Plants

Extensive Advertising & Promotion Help Operator Introduce Lockers In Canada

By Alfred Jones

EXETER, Ont., Canada—"Ask the man who rents one!" is the slogan with which John C. Vidt has developed his Exeter Refrigerated Locker Service into a highly successful enterprise in less than three months.

Opened Feb. 6., the plant already has 100 of its 350 lockers rented, and its spreading popularity indicates that all of the lockers will be occupied before long, he believes.

A sustained advertising and promotion campaign, in which newspaper space and direct-mail literature were used extensively, has made the locker plant well known throughout the surrounding territory, and has popularized the service to the extent that now the locker renters themselves are Mr. Vidt's best salesmen.

In every issue of the Exeter newspaper for the past several months there has been an advertisement for the locker plant, the announcement being in the form of a box, two columns wide and about three inches deep, with the heading "Locker Service News."

When the plant was opened in February, the full two-page center section of the newspaper consisted of Mr. Vidt's announcement of the opening, centrally located and surrounded by congratulatory advertisements of business men in and near Exeter.

Just before the opening, Mr. Vidt mailed out 2,700 pamphlets to a selected list of farmers and townsfolk introducing the locker plant and telling the complete story about it.

Front page of the mailing piece had this message:

"The Story of Refrigerated Lockers. Exeter Refrigerated Locker Service. 'Ask the Man Who Rents One.' Phone 70. Exeter, Ont. John C. Vidt, Manager."

"Refrigerated locker service has so far advanced in its scope and usefulness, that there is really no comparison with the old method of locker storage," the pamphlet stated.

"Modern refrigeration is an engineering science, and primarily developed for the preservation of foods for a long period of time.

"This type of refrigeration should not be compared with cold storage lockers, because they do not accomplish the same service or produce the same results. The modern refrigerated locker plant is a complete food handling establishment where the patrons can have their meat, fruits, and vegetables processed, frozen, and stored in lockers for future use.

'MANY ANGLES'

"Being a comparatively new service there are naturally many angles to a modern locker system. Because of this, and because the benefits and advantages cannot be fully considered in this folder, you are cordially invited to a personal interview with the operator, to discuss the subject more thoroughly and familiarize yourself with the service offered and the methods used, so that you may make the best use of our plant and economize through a locker rental."

Thus, in plain, understandable, straight-forward manner did Mr. Vidt introduce the locker plant to the prospects.

He then pointed out in the pamphlet some of the advantages of locker service, listing economy, convenience, dependability, service.

SAVINGS AT LEAST $50

"The daily cost of a locker is less than the price of a postage stamp," the folder declared. "By making full use of your locker your average annual savings should exceed the sum of $50.

"Butchering can be done at any season of the year, therefore making it possible to slaughter when feed prices threaten to become high, or the prices on livestock are low. Moreover, stock can be butchered during the summer weather instead of waiting until winter, thereby saving several months of feed cost.

"Fruits and vegetables can be taken direct from the garden and placed in a locker for consumption throughout the year. High prices are consequently eliminated on all early, late, and out-of-season produce."

Enlarging upon the service feature, the pamphlet told the prospects that the locker room would be open daily from 8 a.m. to 6 p.m., Tuesdays and Saturdays until 10 p.m. The plant is not open on Sundays nor holidays.

'MEAT EXCHANGE'

"A 'meat exchange' will be provided where farmers can advertise what they have to sell," the folder continued. "We in turn will list prospective buyers and will advertise this feature for you."

The general interest aroused by the mailing of the 2,700 pamphlets, said Mr. Vidt, was surprisingly great. People from the area around town came to have a look at the plant and see for themselves just how it operated.

Every visitor was, and is, conducted through the plant and told of the complete process of cutting, wrapping, and storing of the food.

To increase interest in frozen fruits and vegetables, Mr. Vidt presents to interested prospects and renters a booklet prepared and issued by the department of horticulture, Ontario Agricultural College, Guelph, Ont.

How Canadian Locker Storage System Operator Developed Thriving Business For Plant

One of the first refrigerated locker storage plants in Canada, and the first in western Ontario, is being operated at Exeter by John C. Vidt.

Being the only cold storage plant of its kind within a radius of about 18 miles, the Exeter Refrigerated Locker Service is rapidly becoming a Mecca for farmers and townsfolk who want to keep their supplies of meat and perishable foods safe until wanted.

In this issue of AIR CONDITIONING & REFRIGERATION NEWS, the story of how Mr. Vidt has developed his locker plant into a thriving business is told. Next week the article will continue, and complete information about the construction and refrigerating equipment of the locker plant will be presented by Staff Reporter Alfred Jones.

Titled "Frozen-Pack Fruits and Vegetables," the booklet was written by J. H. L. Truscott of the college, data being derived from experimental work done at the school and from published results of experimental work in the United States and England as contained in the book, Freezing Preservation of Fruits, Fruit Juices, and Vegetables, by Donald K. Tressler and Clifford F. Evers.

BOOKLET TELLS HOW

Mr. Truscott's 13-page treatise tells how, in general, to prepare frozen-pack products, how to pack them, and how to use them.

Notes on experiments with individual kinds of fruits and vegetables, with suggested procedure in each case, are compiled in the booklet, one section dealing wholly with fruits, and another with vegetables.

With this Ontario Agricultural College report to aid him, Mr. Vidt expects to educate his customers and prospects in the freezing and storing of fruits and vegetables so that the demand for lockers will increase to an even greater extent.

Mr. Vidt said that the locker plant is now so well-known and so well-liked by customers that it probably will be advertised from now on almost entirely by word-of-mouth. People renting lockers are telling their friends about the plant and naively creating interest in it.

At present the locker plant does not have a sharp-freeze room for freezing meat and other foods rapidly, but Mr. Vidt is considering having one installed this summer if the demand warrants it.

BIG FISH MARKET

Exeter is just a few miles from Lake Huron, and in season is a pretty big market for fresh fish. If he can educate the public to the idea of freezing fish and storing them in the lockers just as is being done now with meat, fruits, and vegetables, Mr. Vidt is sure he will be able to have a quick-freezing room.

As it is, the meat at present is kept in a chill room at about 35° F. until safe for processing, is then cut and wrapped into whatever shape and size package the customer wishes, and is put into the locker. Locker room is held at about 10° F., and at this temperature the foods in the lockers freeze in less than 24 hours, said Mr. Vidt.

Lockers are rented for $7.50 a year, or $4 for six months. Five customers, including the local hotel, have two lockers each. As an added service, Mr. Vidt stores bottled beverages, eggs, butter, milk, and other non-freezable products in the chill room. The prospective demand for storage space for eggs and dairy products is so promising that Mr. Vidt has built a good-sized cabinet with individual compartments for cold storage in the chill room.

SERVICE CHARGES

Service charges are one cent a pound for cutting, boning, trimming, wrapping, labeling, and rechilling meats, poultry, and fish when the work is done by the locker plant's own butcher, Gilbert Freeman.

If the customer prefers to do the processing himself, one-half cent a pound is charged for the use of the facilities and equipment.

Hamburg and sausage are ground at half a cent a pound. The brokerage service, that is getting sellers and buyers together, is offered at a rate of one cent a pound.

Mr. Vidt does no actual selling or buying of meat himself, nor does he intend to. He will try to find customers for farmers who have meat to sell, and he will try to find suppliers for anyone who wants to buy meat, but he will not enter into the meat business as an active retailer.

Each locker renter may use his own lock and key, and Mr. Vidt has built a cabinet on the wall just inside the front door where the keys are to be hung on designated hooks.

"We have about 18,000 lbs. of meat in the locker plant right now," said Mr. Vidt. "Most of the locker renters are farmers, only about 15% of the customers being townsfolk.

"There are no facilities for slaughtering at the plant, because the sanitary laws and public disapproval would not permit the proximity of a job of that nature. Customers may do their own slaughtering, or they may have it done by a company in town which has a regular slaughterhouse.

"We post the slaughtering charges of this firm on the wall here in the locker plant office so that our customers may decide for themselves

(*Concluded on Page 33, Column 1*)

Mills New, Compact, Self Contained Unit

Dimensions: Width 19"
Depth 17¼"
Height 12¾"

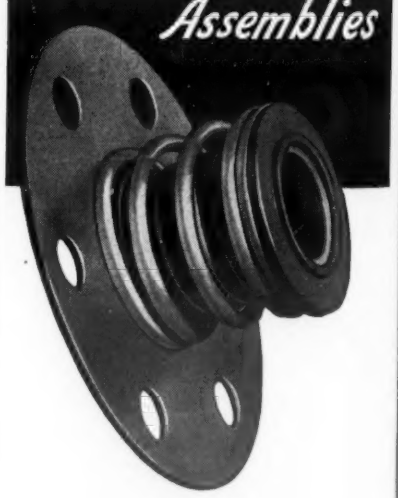
STANDARD:

- ★ Large Cross-Finned Condenser
- ★ Belt Tightener Base
- ★ Channel Iron Frame
- ★ Rubber Mounting
- ★ Thermostat or Pressure Control with Overload Protection
- ★ Suction or Pressure Fan
- ★ Slow Speed Heavy Duty Compressor (1½" x 1½") 2 cyl.
- ★ Positive Built-in Oil Return
- ★ Completely Replaceable Seal Assembly

COMMERCIAL REFRIGERATION DIVISION

Mills Novelty Company, 4100 Fullerton Ave., Chicago, Ill.

Copeland seals Crankshafts "for Life" with SYLPHON BELLOWS Assemblies



Copeland, another famous product in the refrigeration field, uses the Sylphon Bellows as a crankshaft seal . . . the seamless, jointless, all-metal seal that has solved the problem of confining refrigerants under various pressures for so many manufacturers in this industry.

The Sylphon metal bellows, pioneered by Fulton Sylphon Co., has been the subject of continuous research and development in manufacture and application for more than 35 years.

Consult with Fulton engineers . . . let them tell you about the advantages and economies of the Sylphon Bellows. Ask for Bulletin HO-121.

THE FULTON SYLPHON CO.
KNOXVILLE, TENNESSEE
Representatives in All Principal Cities in U. S. A. and in Montreal, Canada and London, England

DRY REFRIGERATED BEVERAGE COOLER

CAPACITIES: (Bottles)
50" - 320 - 12 oz.
6' - 480 - 12 oz.
8' - 640 - 12 oz.

ADJUSTABLE PARTITIONS
50" - 8 compartments
6' - 12 compartments
8' - 16 compartments

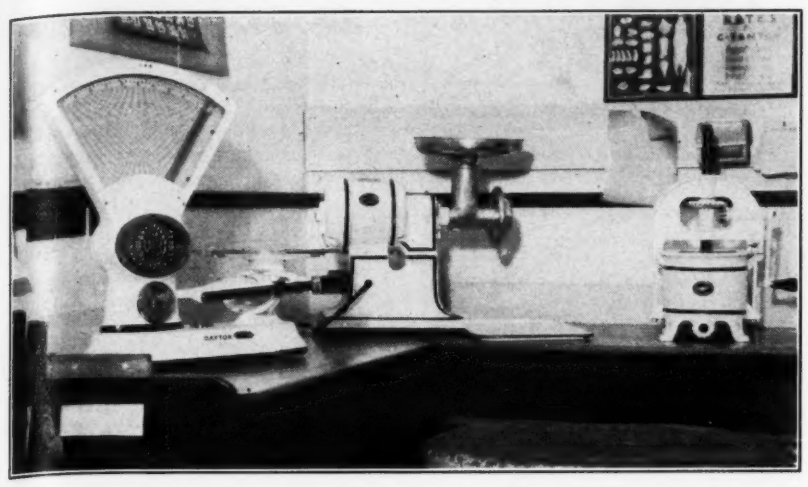
BLOWER TYPE - FORCED CIRCULATION - RAPID COOLING

Three lengths for remote or self-contained Compressor Installation

Literature on request

PUFFER-HUBBARD MFG. CO., Minneapolis, Minn.

Where Locker Plant Processes Meat



Meat processing department of the Exeter Refrigerated Locker Service, with cutting block in center and scales at left. On the rear wall is a schedule of prices maintained by the local slaughterhouse.

No Slaughtering Done By New Canadian Locker Plant

(*Concluded from Page 32, Column 5*)

just how they want their beefs and pigs butchered.

"The only request we make in connection with slaughtering is that beefs be quartered and pigs halved."

All meats, when processed and cut into the required form and size, are wrapped in double waxed paper, each package being labeled with the name of the customer, locker number, and date processed and stored.

No rendering of meat is being done yet, said Mr. Vidt, nor is there any delivery service for customers.

NO HORSEMEAT

"I have received numerous inquiries and requests from mink and fox farms with regard to keeping horsemeat in the locker plant," Mr. Vidt said, "but I've decided not to have anything to do with that type of product. The horsemeat, of course, is perfectly good and is fed to the minks and foxes on the breeding farms around here, but there seems to be a general public attitude of distaste toward the idea of having horsemeat stored in the same building as meat for human consumption."

Mr. Vidt first became interested in refrigerated locker storage while he was in the hatchery business in Arkona, Ont., a small town not far from Exeter. He had moved to Arkona 18 years ago from his home town, Newark, N. J.

He sold out his interest in the hatchery business to his brother-in-law, and soon afterwards he became keenly interested in locker storage. There was a form of locker storage plant in Arkona being operated in connection with a creamery.

Mr. Vidt conceived the idea of an independent locker plant designed on the American plan, and began investigating. On a visit to Detroit last summer, he called at the Kelvinator factory branch sales room on Woodward Ave. and inquired about equipment for a locker plant.

NEWS ARTICLES HELP

He received considerable information, and was referred to AIR CONDITIONING & REFRIGERATION NEWS for more complete and detailed data. Clipping locker storage articles from several issues of the NEWS, Mr. Vidt compiled a scrap-book and studied it.

From the NEWS articles, he learned of locker plants in Michigan, Iowa, Illinois, Ohio, and other midwestern states.

Then he inspected a number of locker plants in Michigan, decided what type of equipment he would want, and returned to Arkona. Next came an investigation of the locker business in Ontario, and Mr. Vidt discovered that there was no independent locker plant in operation.

There were a number of cold storage outfits being operated in conjunction with creameries, dairies, ice plants, and similar businesses, but none of these was an adequate locker service.

'PICKS THE SPOT'

Mr. Vidt then proceeded to "pick the spot" for the locker plant, and decided on Exeter because it is the hub of an area with a radius of about 18 miles in which there could be no future competition set up.

A plant in Exeter, Mr. Vidt ascertained, would serve two townships with a population of approximately 9,000.

So, he had a talk with the commercial refrigeration manager of Wright Piano Co., Ltd., Strathroy, Ont., Kelvinator distributor. The Wright company drew up a complete presentation for Mr. Vidt, covering the entire job from the digging of the foundation for the building to the throwing of the switch to put the finished plant in operation.

The contract was signed, and construction of Mr. Vidt's $8,000 refrigerated locker plant began Nov. 26, 1938.

Plants Should Handle Different Products, ASRE Is Told

ST. LOUIS—Food storage locker plants are beginning to sense their merchandising possibilities, and refrigeration men can assist greatly in effecting this transition, Frank J. Maher, editor of Meat Merchandising magazine, told members of the St. Louis section of American Society of Refrigerating Engineers at a recent meeting here.

"After a 'feeling-out' period in which the primary selling point of locker storage plants has been the storage of meat, operators are beginning to understand the plus-profit possibilities of the locker business by looking about for methods that will help them use their present facilities to better advantage," Mr. Maher said.

Major addition to storage plant merchandising methods, he declared, are:

1. Storage of fruits and vegetables is being forwarded. It has been found that, approached properly, 60% of locker owners will subscribe for an additional locker for this purpose.

2. Locker plants are acting as wholesale outlets for ice cream, especially where sources of ice cream supply are some distance from the town or towns the locker ice cream will reach.

3. Packaged frozen fruits and vegetables as prepared by national manufacturers makes a wholesale outlet possible for retail food stores, who want to handle the products, but find ordinary distribution costs excessive.

4. Large-scale handling of storage of broken eggs for a higher market is possible for plants in good poultry centers.

5. A separate room in the plant can be set aside for fur storage, offering lower prices than storage places at other points in the territory, through agreements with cleaners.

6. Large scale chilling of watermelons can be undertaken for actual selling from the lockers, or as a service paid for by food retailers.

7. Plants also are storing various other forms of produce, especially apples, for sale when market conditions are more favorable.

By such extra-activity methods, Mr. Maher declared, locker plants are assuring themselves a place in the business world.

"This is a baby industry," he said, "and every effort must be extended by the equipment men working with it to make it possible for these locker men to thrive. Storage of meat alone is not enough. Other methods must be used."

Owner, Butcher & Exterior of Plant

John C. Vidt (left), owner, and Gilbert Freeman, butcher, on the doorstep of the Exeter locker plant. At the right is a front view of the building.

Undabar Appoints Bennett Ohio Field Manager

ST. LOUIS—E. W. M. Bennett has been named field manager of Undabar Cooler Corp. in Ohio and part of Michigan, with offices at 1836 Euclid Ave., Cleveland, announces E. W. Jones, vice president of the company in charge of sales.

In addition to Cleveland, Undabar now has field managers headquartering in St. Louis, Pittsburgh, New York City, Boston, Roanoke, Va., Indianapolis, Moline, Ill., and Omaha, Neb.

PROVEN IN PERFORMANCE

McQUAY
LOCKER ROOM UNITS

CAPACITIES
2 to 7-1/2 TONS

Designed especially for Locker Rooms and Sharp Freezers.

Efficient * Easily-defrosted * Inexpensive * Flexible * Easily Installed. . . . Each unit has a heat exchanger, coil, motor and blowers, all housed in a well designed galvanized steel cabinet. Expansion valve with each unit. Fan and motor bearings require minimum attention. . . . Made for all direct-expansion refrigerants. . . . Furnished in suspended or floor types. Each unit gives many years of "trouble-free" service.

Our recently released descriptive bulletin fully covers this line of interesting units. Write or wire today for your copy.

McQUAY, Inc.

1600 Broadway N. E. Minneapolis, Minn.

"K.O." KING OF THE RING . .
but how good would he be with the FOILS?
Appliance requirements vary too . . . Delco builds motors to meet them
Dependability is one motor requirement on which all appliance makers agree. But when it comes to starting and running characteristics, lubrication, frame and mounting design and type of drive—there's as much difference between appliance requirements as there is between the technique of a title-holding heavyweight and that of a champion fencer!
Delco is especially qualified to serve these varying requirements. For Delco has had years of experience in meeting the specialized needs of the country's leading makers of washers, refrigerators, ironers, air conditioners, oil burners and stokers. Delco motors are designed and built for the particular jobs they are to do—one big reason why they are specified so often by so many appliance makers . . . and why they give such satisfactory service to millions of appliance owners.
DELCO PRODUCTS • DAYTON, OHIO
DIVISION OF GENERAL MOTORS CORPORATION
DELCO MOTORS

Superior Completes 1st Year of Operation

PITTSBURGH—If the first year of operation is the toughest for a new company, then Superior Valve & Fittings Co. is "over the hump"—for that parts manufacturing organization, founded last year by John S. Forbes and K. M. (Ken) Newcum, celebrated its first anniversary April 18.

Recent personnel changes have included the advancement of Mr. Newcum from the position of sales manager to that of vice president in charge of sales, the appointment of J. A. Alston as superintendent, and Erle W. Kahle as auditor, H. H. Lamar as chief draftsman, and F. K. Jones as assistant secretary.

Branch managers and factory representatives include: Charles R. Logan, eastern district; Donald E. Rutishauser, Chicago and the northwestern territory; Wm. H. Cody, southwestern district; and E. V. Dunbar, southeastern territory. Arthur Rocke, president of Rocke International Electric Corp., New York City, is general export manager for Superior.

Reviewing the firm's progress during its initial 12 months, President Forbes listed the products introduced by Superior since its formation—a complete line of flare fittings; two and three-way diaphragm packless valves; packed line valves; flanged compressor, angle and evaporator valves; check valves; liquid indicators; heat exchangers; strainers; filters; and other items for the refrigeration and air-conditioning industry.

South Bend Dealers (30) Show Appliances To Prospects (30,000) At Big Exhibition

SOUTH BEND, Ind.—Termed by many appliance dealers the best joint promotion ever staged by the city's electrical equipment firms, South Bend's first electrical exposition closed recently with an announcement by the committee in charge that the show would be made an annual affair.

Some 30,000 people visited the show during its six-day run, and practically every one of the 30 exhibiting dealers reported some major appliance sales at the exposition.

Half a million dollars worth of appliances and experimental equipment was shown. Unusual electrical devices were featured in the publicity and advertising for the exhibition.

The exposition was sponsored by Indiana & Michigan Electric Co., and arrangements were in charge of a six-man committee appointed by dealers and distributors. Position of exhibits around the exposition hall was determined by lot, with displays of 17 manufacturers grouped in the center. A parade of 70 floats opened the show.

The committee-in-charge advertised the show extensively in local newspapers, and individual firms spent approximately $2,500 on advertising during the week, most of this advertising featuring the exhibition. Cost of the show to each participating dealer, outside of individual advertising, was estimated at $30.

Displays were maintained by the following manufacturers: Bendix Home Appliances, Inc.; Curtis Light Co.; Duo-Therm division, Motor Wheel Corp.; Easy Washing Machine Corp.; Frigidaire division, General Motors Corp.; General Electric Co.; Edison General Electric Appliance Co., Inc. (Hotpoint); The Hoover Co.; Kelvinator division, Nash-Kelvinator Corp.; Landers, Frary & Clark (L. & H. ranges and Universal refrigerators); Philco Radio & Television Corp.; RCA Mfg. Co.; Chicago Flexible Shaft Co. (Sunbeam); South Bend Malleable; Westinghouse Electric & Mfg. Co.; Zenith Radio Corp.

Local organizations exhibiting included: Office Engineers, Chikar's Radio Service, Michigan Electric Co., O. W. Schaffner, Better Appliance Store, South Side Electric Co., Valley Supply Co., Radio Mart, Rybolt Heating Co., B. & S. Sandock Co., Seeberger Appliance Store, George H. Wheelock Co., The Light Co., Cloud Bros., Crane Co., A. F. Smith Co., Standard Heating Co.

Builders Store, Inc., Sears, Roebuck & Co., Home Modernizing Co., South Bend Maytag Co., Feingold Appliance Co., Rodin, Inc., Geo. Wyman & Co., L. & K. Englewood Supply Co., Indiana & Michigan Electric Co., Modern Home Supply Co., Malleable Steel Range Co., The Gibson Co., and E. T. Corcoran.

New Frigidaire Dealer

GREAT FALLS, Mont.—The New York Store has been appointed sole dealer in this city for Frigidaire refrigerators.

SPECIALIZED VALVES FITTINGS & ACCESSORIES

HENRY VALVE CO. TRADE MARK

FOR REFRIGERATION AND AIR CONDITIONING

"Our advertising in Air Conditioning & Refrigeration News has brought us consistent results. That is the reason why we have so greatly increased our space during the past two years."

- - Guy J. Henry, Pres., Henry Valve Co.

When a small amount of advertising has shown proved results, it is sometimes logical to conclude that an increased appropriation might show increased results.

In advertising it is often a question as to whether the advertiser is taking full advantage of the opportunity that exists for him. It has frequently been demonstrated that larger advertising programs lead to larger sales.

It is gratifying to Air Conditioning & Refrigeration News that so many regular advertisers tell us about the returns they receive from their investment in the News.

Air Conditioning & Refrigeration News

"The Newspaper of the Industry"

THE COLD CANVASS

By B. T. Umor

Golden Spike

A beardless chin in Omaha these days is a sure sign that some durn stranger is in town. The men are growing whiskers and women are fitting costumes recalling the picturesque days of the old West.

Even refrigeration men are looking backward in preparation for the "Golden Spike" celebration featuring the premiere of "Union Pacific," a stirring saga of the railroad's conquest of the wild and wooly West.

When the dynamic Cecil B. DeMille arrives with his troupe of stars and catches a glimpse of the assorted alfalfa blooming on the faces of the citizenry, he can—if he is the talent hawk he is reputed to be—pick out a new find to add to his collection, for Jess Hart of Nebraska Power, with his luxuriant "mutton-chop" beard is a perfect double for Chester B. Arthur, president and patriot.

* * *

Setting the Stage

Glamour comes to refrigeration. Brochures describing the new Koch florists cabinets are not only done in beautiful color, but as they are opened there floats up an aroma of enticing perfume.

This treat to eye and nostril is one of the advertising ideas of Sam Glass, who, we understand, is no stranger to stage effects and is bringing his theater training right into the refrigeration business.

Sam has been "treading the boards" ever since he stopped a show as a kid with a hot fiddle and snappy songs. Sam is now the footlight toast of Kansas City after a long string of cheer performances in amateur plays. He is a master dialectician and has "doubled in brass" by doing a turn of crooning on the radio.

* * *

Longhorns

The challenge of those goldfish-eating champs is not to be taken lightly down in Texas. "Longhorns," who have a reputation for doing things in a big way, were moved to action by the words of Dave Fiske, A.S.R.E. secretary, at the Frozen Foods Conference at the University of Texas.

He suggested that they put that sissy fish gulping to shame by having the local gourmands devour a few Gila Monsters.

"Pshaw," said a voice in the back of the room, "we could go to work on a couple of small steers, if we could get the doggoned critters to hold still."

* * *

V-Methy-L For Penguins

Old B.T.U. can't get away with anything, it seems.

Only March 29, he qualified for associated membership in the "out on a limb" club by questioning the market for refrigeration equipment in the Antarctic. Now comes F. W. Binns, Virginia Smelting Co., to pull him up sharply on what appears to have been a "boner" of at least minor magnitude.

Says Mr. Binns:

"Virginia Smelting Co. found a very good customer, Admiral Byrd, who on his last trip took three cylinders of V-Meth-L as part of his Antarctic equipment."

* * *

Another Bird Story

Citizens of Milford and Wilton, N. H. recently voted a collective "Thank you!" to a covey of pigeons for getting them electric current four days ahead of schedule.

The birds were roosting on a high tension wire near the towns, and when they all flew off together, they caused the wire to swing back and touch another high tension wire. With a puff and a flash, the short circuit cut off the power.

Service men from the Public Service Co. in Manchester immediately put into commission the new auxiliary line, not supposed to be in operation until four days later.

Chart Shows Low Cost Of Using Appliances

BUFFALO — Visual evidence of the low cost of electrical appliance comforts is being furnished dealers in western New York state, in the form of a chart showing how little, on the average, these appliances cost to operate per month.

Furnished by the Electrical League of the Niagara Frontier, the chart, designed to be placed in the dealer's showroom or hung on the wall, lists 29 appliances and lamps ordinarily used in the home. Figures under each item show how much it costs to operate them in the average home.

By referring to the chart, prospects find that an electric refrigerator can be used for only 80 cents a month, a range for $2.25, a roaster for 30 cents, an ironer for 38 cents.

Raleigh, N. C. Dealers See G-E Revue

RALEIGH, N. C.—The benefits to be derived from living the electrical way were depicted here in a production, "Get Over into Clover," staged by the General Electric Co. under the sponsorship of L. W. Driscoll, Inc., distributor for General Electric.

ATTENTION ! !

MANUFACTURERS—EXPORTERS

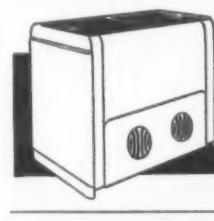
Thoroughly experienced Sales and Service Engineer capable of Merchandising, Laying out, Diagnosing and Servicing Household, Commercial and Industrial Refrigeration Equipment. Several years foreign trade experience with extensive travel. Speaks Spanish and French. Robust health and sober habits. At present employed, desires connection with responsible firm with opportunity for advancement. Write Box 1144, Air Conditioning & Refrigeration News.

Filtrine

Water Coolers — Filters
Cafeteria — Industrial
Commercial Remote
Surge Tanks Pipe Coils
Filtrine Mfg. Co., Brooklyn, N.Y.

It's Easier to Sell DOLECO Vacuum COLD PLATES For Refrigerated Trucks MORE PROFITABLE TO THE OWNER!

• These Hold-over Truck Plates provide the most refrigeration per dollar invested, permit long hauls at even temperatures, preserving original quality at point of delivery.
Investigate their superiority. Write us today.
DOLE REFRIGERATING CO.
5922 N. Pulaski Rd. Chicago, Ill.



QuiKold BEVERAGE COOLERS 10 MODELS WRITE FOR CATALOG S&S COOLERS LIMA, OHIO

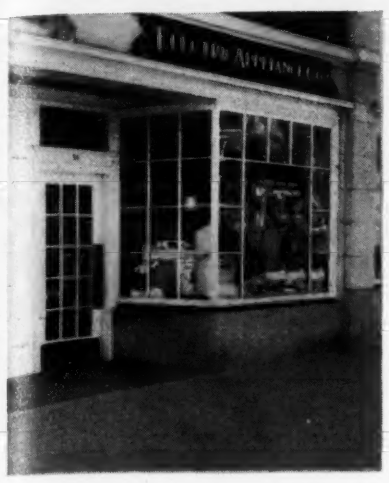
Refrigeration and Air Conditioning
AIRO PARTS · TOOLS · SUPPLIES Wholesale Only SUPPLY CO.
2732 N. ASHLAND AVE CHICAGO ILLINOIS
Write for catalog ASCo on your letterhead

Use CHICAGO SEALS for seal replacements
A complete line in all sizes
CHICAGO SEAL CO.
20 North Wacker Dr., Chicago

PENN Leads in AUTOMATIC SWITCHES AND CONTROLS
Write for Catalog
PENN ELECTRIC SWITCH CO.
GOSHEN, INDIANA

Profitable Sales Ideas

These Small Dealerships Have 'Eye-Appeal'



You don't have to operate a big dealership to make your place headquarters for appearance as well as appliances in your city, as these pictures of dealers' stores in small and medium-size New England towns prove. Above: Electric Appliance Co., Westinghouse dealer, Pittsfield, Mass. Upper right: Smith Electric Co., General Electric dealer, Troy, N. Y. Lower right: John Owens Electric Shop, Kelvinator dealer, New Hartford, N. Y., a town of 1,600.

• • •

Commercial Business Provides Bread & Butter For Appliance Dealer In New Hartford, N. Y.

NEW HARTFORD, N. Y.—A sound reputation as an electrical contractor and a two-county business as an all-makes service dealer brings bonuses in sales of both household and commercial refrigeration equipment for John Owens, owner of Owens Electric Shop in this town of 1,600 people, just outside Utica.

From a mark of 30 in 1937, Mr. Owen's household refrigerator sales dropped to 17 units last year. There was an encouraging pick-up at the very end of the year, however—he sold five units in the week between Christmas and New Year's.

Commercial refrigeration business has been the company's bread and butter, as far as sales are concerned, and the company's reputation as a servicing organization has brought it many leads to new-equipment sales.

Mr. Owens has been in the electrical contracting business for 17 years, and has been selling electric refrigeration since 1928. He sells the Kelvinator line under the Graybar distributorship in Schenectady.

RICH SOURCE OF LEADS

Being in the electrical contracting field has been a rich source of "first leads" to both commercial and household sales, Mr. Owens says. Through the utility company, he finds out where new rural lines are to be erected. Then he goes to the people along these lines to land the wiring contract for their homes.

On that job, he gets to know the people, and casually introduces the electrical appliance topic. Since he's usually first on the ground with this subject, he gets a nice "in" on both immediate and future business.

Working through all the small towns in Oneida and Herkimer counties, Mr. Owens is well known, and his friends and users also furnish him with many tips on prospective appliance buyers. Two salesmen assist him with household and commercial sales, and he has an extra serviceman . . . for he himself knows all the equipment from the ground up, and does a great deal of that type of work himself.

Reason Mr. Owens continues with this service work himself is that he considers it one of the best possible sources of new-appliance leads. A great deal of his own time is spent on commercial servicing work, where there is a large field for replacements of old-style equipment.

When he gets on a service job, either household or commercial, which promises to become expensive because the equipment is antiquated, Mr. Owens starts talking the economy and greater dependability of new equipment. Because his customers know he wouldn't advise them falsely, many such hints develop into sales.

The serviceman is trained to observe equipment on his jobs . . . and, where replacement seems advisable, to notify Mr. Owens, who personally handles all such "service-leads" from the sales angle. Here, as in the commercial field, the same argument—greater economy and dependability of the new models, is used.

DISPLAYS BIG UNITS

Thing that impresses you most as you enter the small Owens showroom is the large quantity of bigger-size models on display.

He does this, Mr. Owens declares, for just one purpose—to cash in on the replacement market. For he thinks most of his sales this year will be to persons who have previously owned electric refrigerators, and who will be prospects for models of 6-cu. ft. capacity and up.

Line-up of display models in the Owens showroom does not include a refrigerator of less than 5 cu. ft., and ranges all the way up to 10-cu. ft units.

"When they buy their second refrigerator," Mr. Owens reasons, "customers are going to want a unit with plenty of storage room. Chances are, when they bought the first one, they under-estimated their family's requirements. To these customers, we'll talk the larger units—and we'll sell the larger units."

On trade-ins, Mr. Owens makes all the estimates, based on his experience of what such units, repaired and reconditioned, will bring for re-sale. As a usual thing, he doesn't figure to make money on trade-in re-sales.

"But now and then," he remarks, "you'll happen across an extra-good used unit, which you can recondition and sell for a fairly good price." When he trades for a unit, he tries to picture one of his acquaintances who'd be interested in it.

All trade-ins carry a 90-day guarantee from the company. In addition to selling to the low-income market with these units, Mr. Owens also finds a ready demand for them among summer camps and owners of summer cottages.

For his advertising, Mr. Owens sticks close to the telephone directory, and classified advertising in weekly newspapers in the territory he serves. Much of the latter type of advertising is used for trade-in units—and many people who come in to look at used refrigerators end up by purchasing new ones.

With new rural power-line customers, Mr. Owens uses direct-mail pieces, his latest effort in this line being a two-page poster. This type of promotion costs little . . . and, although it may not result in an immediate "pay-off" in new sales, to use Mr. Owens' own words, "it keeps 'em thinking about us—and, sooner or later, they're going to be prospects for new appliances."

Unusual Business Card Promotes Sales

UTICA, N. Y. — Salesmen for Schwender's, appliance dealership here, use a business card which, in addition to identifying them and the company, serves a rather unusual sales promotional purpose.

The business card is a double-folded affair, no larger than the usual card. Its front carries the salesman's name and the fact that he is associated with Schwender's. Back side of the flap includes a 1939 calendar.

Sales promotional part of the card is contained in the second section. Under the heading "Electric Servants Work for Less Wages," approximate operating costs of various appliances per month or day are given.

Refrigerators, the card shows, can be operated for 2½ cents a day, an electric range for 13 cents a day, an ironer for 30 cents a month, a washer for 6 cents a month, and dishwasher for 7 cents a month.

Also on the sheet are shown the wave lengths of popular U. S. and foreign radio stations. On the back of this side are listed auto mileage distances between Utica and a number of other New York towns.

Most ordinary business cards are discarded soon after they are presented. Including additional information, something the prospect will want to keep, insures the Schwender card being kept inside the prospect's billfold. There it will be referred to often—and every time it's consulted, Schwender's gets some free advertising—and one of those times, the customer's going to be thinking about buying an appliance.

Dealer Sells Trade-Ins As 'Basement Bargains'

WICHITA, Kan. — A basement "Bargain Corner" is the George Innes department store's answer to the appliance trade-in problem.

For it is down to this out-of-the-way department that the store's electrical department sends all of the used equipment which it receives. Here these items are priced (according to model, age, and condition) as low as possible, so that they will be moved out rapidly.

If they should prove to be "white elephants," they are subjected to a second mark-down. This rarely happens, though, for the demand usually seems to exceed the supply, and appliances seldom remain in the Bargain Corner for more than three or four days.

Any customer who has a satisfactory credit rating may purchase these used appliances on a monthly charge account or on a contract basis.

Not wishing to place this "rummage stock" in direct competition with the new appliances which it handles, the store advertises the used bargains only at the cheapest rates and in the morning newspapers.

Mac McIntyre To Manage Hale Corp. Appliances

MANCHESTER, N. H.—Mac McIntyre, formerly with Brown-Thomson Co., Hartford, Conn., has been appointed manager of the appliance department of J. W. Hale Corp. here.

Bonderizing

A FEATURE THAT HAS Real SALES APPEAL

Other things being equal, the public will buy the product with the finest appearance. An attractive finish catches the eye and keeps the customer sold.

In making products that may rust—be they washing machines, refrigerators, office machines, electrical or architectural equipment, protection from corrosion is vital.

Your own self interest indicates the use of Bonderizing as a base for any type of paint. It gives the finish a secure foothold on the metal and retards rust development. Protect your dealers against unnecessary servicing costs. Retain greater goodwill of users.

Send for a copy of a new book describing the latest developments in this rust inhibiting Parker Process.

PARKER RUST PROOF COMPANY
2197 E. Milwaukee Ave. • Detroit, Michigan

"FINISH PERMANENCE IS A POWERFUL SELLING FACTOR"

PARKER Processes CONQUER RUST
BONDERIZING · PARKERIZING

MANHATTAN V-BELTS

Customer Builders . . . .

Trouble-free drives because they are built for steady service. Exclusive construction—endless whipcord strength member completely floated in rubber and placed in the neutral axis—resists destructive internal heat, stretch and side-wear. Thus, they remain flexible, strong, smooth running, noiseless.

THE MANHATTAN RUBBER MANUFACTURING DIVISION
of Raybestos-Manhattan, Inc.
45 TOWNSEND STREET PASSAIC, N. J.

THE BUYER'S GUIDE

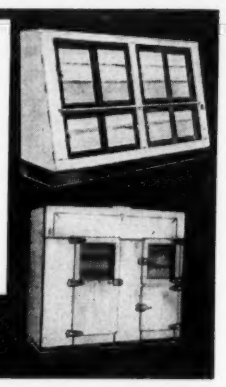
53 YEARS OF SERVICE 1886 — 1939

PERCIVAL Line meets EVERY NEED !

Includes Coolers, Reach-In Refrigerators, Top Type, Double Duty, Delicatessen, Dairy and Produce Display Cases and Percival Condensing Units.

Quality built; corkboard insulated; porcelain clad; beautifully streamlined. Coiling system is second to none.

Write for attractive prices, literature and Distributor's proposition.

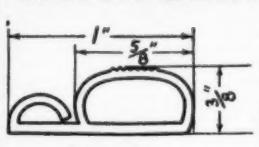


C. L. PERCIVAL CO.
DES MOINES, IOWA

REMPE
FIN COILS *and* PIPE COILS
for Refrigeration and Air Conditioning
AUTODRAFT
For Walk-In Coolers
UNIT COOLERS *For comfort and low temperature Cooling*
REMPE CO., 340 N. Sacramento Blvd. CHICAGO

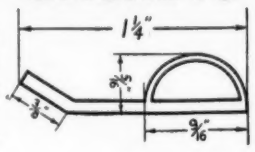
THE PROFIT LINE FOR '39
Refrigerator and Compressor sales go together. SHERER offers a complete line of cases, coolers and boxes to be sold with your compressors.
Write for catalog and franchise details, mentioning territory desired.
SHERER-GILLETT CO., Marshall, Mich.
Manufacturers of Refrigerated Display and Storage Equipment

REFRIGERATOR DOOR GASKETS



1349

Many types in molded and extruded rubber available for replacement use. Ask your jobber for copy of bulletin listing complete line. Manufacturers—let us work from your Blueprints.



1761

General Offices
420 North La Salle Street
CHICAGO

JARROW PRODUCTS CORPORATION

Factories
Chicago & Grand Rapids

ACME PRODUCTS
REFRIGERATION AIR CONDITIONING
PIPE COILS - FINNED COILS - TUBING COILS - AMMONIA SHELL AND TUBE CONDENSERS - FREON CONDENSERS - EVAPORATIVE CONDENSERS - BRINE COOLERS - SHELL AND TUBE WATER COOLERS - DRY EXPANSION WATER COOLERS - UNIT COOLERS - BAUDELOT TYPE WATER COOLERS - ACCCUMULATORS - HI-PEAK STORAGE WATER COOLERS - OIL SEPARATORS LIQUID RECEIVERS - SPECIALTIES
All of the above units made to use with Freon, Methyl Chloride and Ammonia
ACME INDUSTRIES, INC.
JACKSON MICHIGAN

Chieftain Message No. 36
CHIEFTAIN FACTS:
Do Tecumseh customers stay sold?
Ask our production men who now are asked to produce 1,200 refrigerating units per day.
TECUMSEH PRODUCTS CO., TECUMSEH, MICH.
Canadian distributor: Refrigeration Supplies Co., Ltd., London, Ontario

COMPARE! Gilmer Guarantees You over 41% clear profit on the famous 35-R Assortment of Gilmer Refrigerator Belts

Best-sellers for all the most popular makes. *Gilmer Display Bar (or 25 Gilmer Display Hooks) included with assortment.* Look on Page 4 of the Gilmer Catalog, "America's Belt Bible," for this fast money-maker.
Send TODAY for your FREE COPY.
L. H. GILMER COMPANY, Tacony, Philadelphia

Quick Frozen Foods

Methods of Freezing, Handling, Growth Of Industry Shown In Govt. Survey

WASHINGTON, D. C. — Comprehensive information about quick-frozen foods, including methods of freezing, processing, distributing, packaging, storing and transporting, and a concise picture of the frozen foods industry as it exists, are presented in "Quick Frozen Foods," a publication prepared by C. Roy Mundee and Frances C. Porcher in the foodstuffs division of the Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce.

The booklet lists the particular kinds of foods that are quick-frozen, and gives the locations of the places where quick-freezing is being done.

TWO CHANGES OCCUR

"There are two principal types of change which occur in freezing foods," states the booklet. "Physical distortion of cells by the formation of ice crystals, and physico-chemical changes such as dehydration and separation of constituents of the cell solution, enzymic action, and oxidation.

"The most notable difference between slow and quick-frozen foods is in the size of the ice crystals formed in the tissues. Both animal and plant tissues are composed of cells containing a complex solution, the water from which tends to crystallize out when the product is frozen.

"The faster the food to be frozen can be brought to its freezing temperature, the faster the crystals will form, the smaller they will be, and the less damage they will cause to the cell structure.

CHECKS CHEMICAL ACTIONS

"Quick-freezing also checks chemical and enzymic actions which produces off-flavors and discoloration of the foods.

"Although techniques for comparing the effects of quick-freezing with other methods of preservation have been worked on only since about 1907, patents for freezing fish by what was in effect a quick-freezing process were taken out as early as the 1860's.

"The basic principle of all quick-freezing processes is the rapid removal of heat from the food to be frozen, and this may be effected by a variety of methods. These may be classified as follows:

FREEZING METHODS

"1. Freezing in Air: 'cold storage' or 'sharp' freezing is accomplished by keeping the product in a refrigerated room with or without moderate air circulation. This is not really 'quick freezing' and must be distinguished from air-blast freezing which utilizes high-velocity air currents for rapid heat transfer.

"The air is cooled by fans blowing over refrigerating coils or dry ice, and freezing may take place in a room in which the coils are arranged as shelves on which the food is placed or in a tunnel through which the product passes on a conveyor.

"2. Direct Immersion: freezing may be effected by direct immersion of the product in a refrigerated liquid (sodium chloride brine, sirup, or other liquid). Direct immersion of fish in brine was one of the earliest quick-freezing systems, and one of the most recent is direct freezing of fruits in sirup which is then removed by centrifuging before the food is packaged.

"3. Indirect Immersion: this method is substantially like that of commercial ice making. The food is placed in metal containers which are immersed in cold brine. The containers may be made in compartments so that individual pieces may be frozen, or the food may be frozen in a solid block of water, brine, or sirup ice.

"The containers may be in the shape of a regular freezing can, an especially formed mould, or a tube which will hold the pre-packaged product.

"Another freezer of this general type consists of a submerged tube through which cans of the product are pushed. The refrigerant is held at around —40° F.

INDIRECT CONTACT

"4. Indirect Contact—Single: a number of systems utilize the application of a refrigerant to a metal plate on the other side of which the food is placed. A metal pan, floating through channels of cold brine, and a conveyor with metal plates fitted with fins which dip into cold brine, are some of the means used. The food may or may not be packaged and may or may not be under a certain amount of compression.

"5. Indirect Contact—Multiple: (a) double belt freezers employ two endless non-corroding metal belts which hold the food placed between them at any desired pressure and carry it into a tunnel where brine sprays at —45 to —50° F. play on the belts (but do not come into contact with the food because of the overlap of the upper belt) and effect rapid heat transfer.

"(b) Multiple plate freezers consist of several layers of hollow refrigerated metal plates, in an insulated cabinet. When the food is placed between the plates they can be closed on the product at any desired pressure, and the refrigerant is circulated in the plates until freezing takes place. These freezers in the smaller sizes are made with a self-contained motor so they may be moved around the countryside to follow the crops.

SPRAY FREEZING

"6. Spray or Fog Freezing: some methods involve the spraying of cold brine against the sides of metal containers in which the food is placed, but the term spray or fog process is usually applied to freezing by carrying the loose product on wire mesh or stainless steel conveyors through high velocity sprays of refrigerated liquid. The spray may be of salt brine for meats, sea foods, and poultry, sugar solutions for berries and fruits, and neutral salt-sugar solution for vegetables.

"7. Other Methods: a method of freezing poultry has been developed in which a tube is inserted through the eviscerated body cavity, the giblets and clean water are put in the space at the sides, and the refrigerant (brine at —3 to —5° F.) is pumped through the tube.

"These are in effect the principal processes employed, though there are numbers of other possibilities, and during the period 1921-36 alone some 50 patents were issued on quick-freezing apparatus. The tendency now seems to be toward individual engineering of plants in order to use the method which will operate most effectively according to the particular situation."

The booklet traces the growth of quick freezing from its first commercial use on fish in the 1920's to the end of 1937, by which time quick-freezing processes were being applied to vegetables, poultry, fish, fruits, and meats.

WHERE FREEZING IS DONE

The actual freezing, the booklet points out, is carried on in a number of sections of the country, according to each section's principal food product. Fish freezing is concentrated along the New England coast, the Great Lakes, and the Texas coast. Fruit freezing is concentrated mainly in Oregon, Washington, and California, with other plants scattered through New York, Pennsylvania, the midwest states, southern states, Colorado, Utah, and Cuba, and northwest Canada.

Quick freezing of vegetables is concentrated in the same states as is fruit freezing, and also is carried on in many of the other states.

California, New York, and the Middle West are the three principal regions for quick freezing of meat, the booklet states.

Distribution of quick-frozen foods now covers almost the entire country, and the industry has spread to Japan, Germany, England, Cuba, and other foreign countries.

The booklet makes it clear that only a certain few carefully selected variety of the different types of foods are really suitable for quick freezing.

STRESS PROPER HANDLING

Importance of proper processing and handling is stressed as a main factor in the quality of frozen foods. Speed with which the foods are taken to the freezing plant, thoroughness with which they are cleaned and prepared, and care with which they are packaged all have a direct bearing on the final product, the treatise shows.

"Principal problems in packaging quick-frozen foods," it is stated, "are physical and chemical—those involving handling and storage—and commercial—those involving distribution and appeal to the consumer.

"The handling problems are those of strength, compactness, suitability for use with automatic packaging equipment. Proper storage depends upon (1) the maintenance of low temperatures which retard chemical and enzymic action and (2) prevention of dehydration. Packing materials must, therefore, be as nearly moisture-vapor proof as possible, and if the food is packaged before freezing, not so thick as to act as insulation and prevent quick-freezing. Shipping cases must provide as much insulation as possible."

TYPES OF CONTAINERS

Various types of containers for different kinds of products are listed in the booklet, and these are made of wood, tin, glass, or paper. Paper containers with moisture-vapor-proof liners are most widely used at present.

"Quick-frozen cartons usually range between 1 and 5-lb. sizes," states the article, "but in January, 1938 the Northwest Frozen Foods Association

(*Concluded on Page 37, Column 1*)

WILSON DEALERS HANDLE A COMPLETE LINE

Wilson Systems Of Milk-Cooling Present The Wilson Bottle-Storage Cooler Featuring the TRIPLE PURPOSE central compartment to provide refrigerated brine for: (1) Aeration of Milk. (2) Storage of Milk in the two adjacent compartments. (3) Making of Ice for use on delivery route, if desired. There is a size and type of Wilson Milk-Cooler for every purpose. This Bottle-Storage Cooler, with aerator and pump, makes a complete cooling and storing unit for the small retailer. For the large retailer WILSON SYSTEMS provide the Wilson Sectional Walk-In Storage Coolers in 18 stock sizes with brine tank, aerator and pump.

GET YOUR FULL SHARE OF ALL MILK-COOLING BUSINESS
WRITE FOR DETAILS
WILSON CABINET CORP.
SMYRNA DELAWARE

How Frozen Foods Are Being Distributed

(*Concluded from Page 36, Column 5*)

convention set up the first packaging standards.

"They adopted a consumer carton based on the size for 12 ounces of peas (the dry pint measure) to be used for other vegetables regardless of weight, and 2½ and 5-lb. cartons for the institutional trade, to be used regardless of size variations.

"The consumer size is based on the fact that this will provide servings for four people—the average American family—thus giving the housewife a convenient purchasing unit."

In dealing with storage and transportation, the Mundee-Porcher report discusses warehouse storage, retail storage, transportation from freezing plant to warehouse, and transportation from warhouse to retail outlet.

Considerable discussion is made of types of cabinets for storing and displaying the foods in the retail store, and the production of efficient cabinets at a price within the reach of the average retailer is lauded as a recent, important development in the spread of frozen food distribution.

STILL EXPERIMENTAL

Marketing of frozen foods is still in the experimental stage, it is pointed out, and there is need for further study in industrial and distribution costs, and for promotion of retailer relations, advertising, and consumer education.

"It is estimated that of the 250,000,000 lbs. of quick-frozen foods reported packaged in 1937, 60% went to processors, bakeries, ice cream manufacturers, and preservers; 30% to hotels and institutions; and 10% to the retail trade," state the authors.

"This takes into account some of the cold pack fruits which are not strictly speaking quick-frozen, and so raises the figure for the processing trade.

"The frozen fruit packers of the Northwest have well-established connections with brokers who act in effect as their sales representatives in important consumption centers. Large processors and wholesalers buy through the brokers and sell in turn to the smaller processors and institutions.

FOLLOW USUAL CHANNELS

"The small package quick-frozen foods also follow more or less the usual channels of distribution through packer, broker, wholesaler, and retailer, but a company may combine the first three and control the retail storage cabinets as well.

"Another company may act primarily as a wholesaler, contracting for a supply of various frozen products from individual packers, giving them their own brand name, and reaching the retail market through regular or wagon jobbers. In such case the company may arrange for the sale of cabinets to the retailer, but has no control over his use of them.

"Still another combination is the packer who joins with dairy, ice cream, or ice companies, who then distribute a variety of frozen foods with their usual refrigerated products, and use their already established retail outlets with storage facilities.

STORAGE IMPORTANT

"Proper storage in the retail store is of prime importance, since consumer acceptance depends upon a supply of a consistently satisfactory product."

Growth of production of quick-frozen foods since 1936 is shown in a table which concludes the article. Based on reports of companies which consider themselves producers of quick-frozen foods, the yearly total outputs were: 1396 (47 companies reporting)—169,209,000 lbs.; 1937 (62 companies reporting)—273,407,766 lbs.; 1938 (46 companies reporting)—intended output 375,451,000 lbs., apparent output 455,856,000 lbs., "guestimate" output 480,000,000 lbs.

QUESTIONS

Sales of Non-Electric Refrigerators

No. 3371 (University, Pennsylvania)—"In your issue of Oct. 19 there was a computation showing the sales of household electric refrigerators by years from 1920 to 1938, together with average retail prices.

"I should like to secure, if available, a comparison showing the sales and retail prices of old non-electric refrigerators. Could you refer me to some source where I could secure this data, if you do not have it in your organization?"

Answer: You might be able to obtain this information by writing to either the National Refrigerator Manufacturers Association, 205 W. Wacker Dr., Chicago, Ill., or the National Association of Ice Industries, 163 W. Washington Ave., Chicago, Ill.

Makers of Meat Keepers

No. 3372 (Manufacturer, California)—"Will you please advise where we can purchase, for production, a pan similar to the one used by Kelvinator as their meat keeper?"

Answer: We suggest you contact the following companies, any one of which should be able to take care of your requirements:

Challenge Stamping & Porcelain Co. Grand Haven, Mich.

Mullins Mfg. Corp., Warren, Ohio

National Enameling & Stamping Co. 270 N. 12th St., Milwaukee, Wis.

S & S Products Co., Lima, Ohio

Volrath Co., Sheboygan, Wis.

Specifications Book Traces History

No. 3373 (Distributor, Louisiana)—"We are endeavoring to compile a list of the various automatic refrigerators on the American market, when they were first offered for domestic sale, and when their sales were discontinued (if they are not now being manufactured).

"The writer seems to recall that you published a list similar to this recently, and we would appreciate it if you can aid us in getting this information—since we want such a list to be accurate. If you can give us a compiled list of domestic refrigerators, when they were first offered for sale and if they are still being manufactured or not; also if they went off the market and have since been reorganized and offered for sale again."

Answer: We have published something which is more than just a list of electric refrigerator manufacturers who have been in business and then dropped out.

We have published a brief corporate history of each manufacturer who has been in the business and then dropped out. This information is published in the 1936 Refrigeration & Air Conditioning Specifications Book, which also gives complete product and specifications data on every model of every make of refrigeration equipment manufactured through 1936.

This information has not yet been made available for 1937 and 1938. The Specifications Book is available at a cost of $2.00.

Report of Appliance Sales To Farmers

No. 3374 (Advertising Agency, Pennsylvania)—"I note with a great deal of interest your reference to Dr. White's report on electrical appliance purchases by farmers as made to the Committee on the Relation of Electricity to Agriculture.

"I am just wondering if it would be possible to have sent to me a copy of Dr. White's report pertaining to the purchase of electrical appliances by farmers."

Answer: Write directly to Dr. E. A. White, 58 East Washington Ave., Chicago, Ill. for a copy of his report.

Data on Commercial Equipment Sought

No. 3375 (Distributor, New York)—"Kindly send me your latest catalog containing all the new machines, units, etc. of all the makes manufactured, regarding commercial refrigeration."

Answer: We are not exactly clear as to just what book you wish. We publish a Refrigeration & Air Conditioning Directory, which is a buyer's guide and gives classified listings of the manufacturers of refrigeration and air-conditioning products, including equipment, parts, materials, supplies, accessories, etc. The 1939 edition of this book is now available at a cost of $1.00.

We also publish a book entitled 1936 Refrigeration & Air Conditioning Specifications which gives the specifications of all makes of all models of household and commercial units through 1936. Copies of this book are available at a cost of $2.00 each.

Agitator For Water Bath Cooler

No. 3376 (Distributor, Minnesota)—"I am wondering where we can buy the water bath cooler agitator motor and agitator propeller as illustrated an page 18 of the Feb. 8 issue."

Answer: We do not know who makes this agitator motor and propeller, but you could probably obtain this information by writing to the Liquid Carbonic Co., 3100 S. Kedzie Ave., Chicago, Ill.

An agitator much like the one illustrated is manufactured by the Ole G. Halvenson Co., 3253 N. Kedzie Ave., Chicago, Ill.

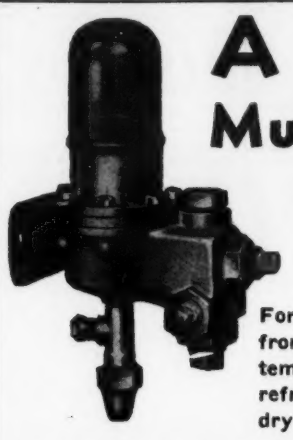
Manual C-1 Contains Refrigerant Data

No. 3377 (Service Engineer, New York)—"I notice in your REFRIGERATION NEWS that you answer questions that are asked by the men who work in the refrigeration line. I would, therefore, appreciate it very much if you could please supply me with the following data:

"The following on: 'F-12,' 'F-114,' Iso-Butane, Carrene, and Methyl Formate: Molecular weight; critical pressure (lbs. abs.); critical temperature; freezing point; melting point; specific heat of liquid at 32° F.; specific gravity of liquid at 32° F.; volume of liquid (saturated) (32° F.); boiling point of 'F-114,' Carrene, Methyl Formate.

"If you cannot supply me with the above data I would appreciate it very much if you could tell me who could supply the above data to me. If there is any book published that has the above in it, I would be very grateful to you if you could tell me its title and author and publisher."

Answer: You will find answers to your questions on refrigerants in Chapter 3, "Properties of Refrigerants" of the Commercial Refrigeration Manual C-1 which we publish. This book sells for $1.00, and we are sure that you will find much other information in it well worth your while.



AMINCO
Multiple-Temperature
Snap-Action Valve
"A Precision Instrument"

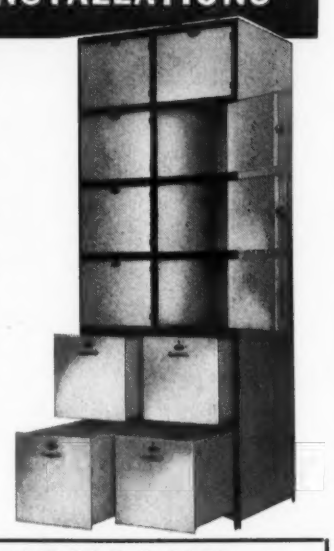
For systems with more than one coil, operated from one compressor unit, controlling differing temperature on various coils. May be used with any refrigerant except ammonia. For flooded as well as dry gas types or any combination of either.

Any variety of units such as ice cream cabinets, soda fountains, back bars, water coolers, candy counters, beer coils, storage rooms, etc. may be connected up to a single compressor unit by the use of AMINCO Multiple Temperature Valves. Adjustable from 20" of vacuum to 63 lbs. pressure. Differential 7 lbs. min. to 29 lbs. max.

Free from bellows strain.

AMERICAN INJECTOR COMPANY
1481 Fourteenth Avenue DETROIT, MICHIGAN
Pacific Coast Warehouse Stocks—Van D. Clothier, 1015 E. 16th, Los Angeles, Cal.
In Canada: Modern Household Appliances, Ltd., 382 Victoria Ave., Westmount, P.Q.

MAKE EXTRA PROFITS ON COLD STORAGE FOOD PLANT INSTALLATIONS



●You can add to your income easily and quickly by selling A-S-E Froz-n-Food Lockers. The increasing number of cold storage food locker plants being established provides unusual profit opportunities for refrigeration dealers and service organizations in all parts of the country.

Scientifically designed and well constructed lockers are of primary importance to the successful operation of cold storage locker plants. A-S-E Froz-n-Food Lockers are made by an organization with over 25 years of quality locker building experience—yet A-S-E lockers cost no more than ordinary lockers.

Find out how easily A-S-E Froz-n-Food Lockers can give you *extra* profits—without costing you a cent—write for complete information.

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INCORPORATED
1419 Kensington Avenue Aurora, Illinois

LARKIN Wall

Humi-Temp Units
will be Profit-Makers and Customer-Winners for You!

These units are particularly suited to installations where overhead room is of prime importance—because of exceptionally compact construction, suitable for many refrigeration uses. Adequate coil and fin areas provide ideal humidity conditions. Why lose sales and customers—when you can sell the Larkin Wall Humi-Temp Units so easily?

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General Office and Factory
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New York Branch, 57-59 E. 11th St.

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NOW 8 BIG WAREHOUSES TO SERVE YOU

With complete stocks of Air Conditioning and Refrigeration Parts and Supplies. Write for catalog on your letterhead. We only sell wholesale.

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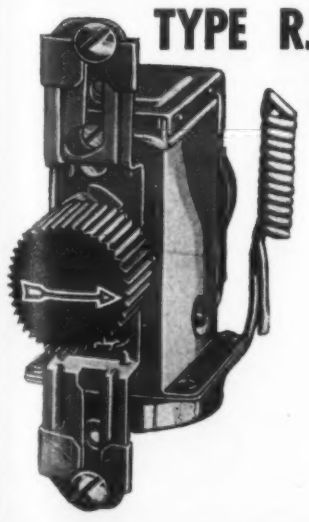

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A SIMPLE, positive, completely dependable general replacement control for the majority of new-model household refrigerators. Stainless steel construction. Outside differential adjustment. Designed for either vertical or horizontal mounting. Dial pointer serves for cold control, defroster and on-off switch. Mounting brackets are adjustable to suit all mounting hole openings in line with dial pointers.

Ranco INC., Columbus, Ohio, USA

THE BUYER'S GUIDE

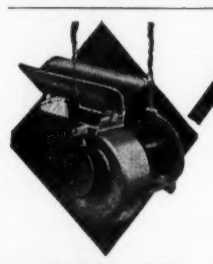
PURO
ELECTRIC WATER COOLERS
Thoroughly reinforced all steel attractively finished cabinets.
Complete line of different Models and Capacities.
Write for details and sales prices.
Puro Filter Corporation of America
440 Lafayette Street, New York City — Spring 7-1800

NEW IDEAS FOR REFRIGERATOR DOORS

1. Locked-in, lift-out doors
2. Tightly closed overlap
3. Reduced air leakage
4. Roller bearings
5. Quiet closure
6. Lighter weight
7. Greater strength
8. Shock absorbing jambs

At no extra cost—all the engineering features for display cabinet doors listed at left—with the new Ace "Loxit" hard rubber assembly units—doors, rails, jambs. Complete range of sizes. Write for details of new standard closure lids and insulating rings for frozen foods cabinets, ice cream cabinets and soda fountains. American Hard Rubber Co., 11 Mercer St., New York . . . 111 West Washington St., Chicago, Ill. . . . Akron, Ohio.

ACE "LOXIT" PATENTED DOORS



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Gets **NEW PROFITS** — *Solves* **CIRCULATION PROBLEMS** *in Coolers—Sells on Demonstration*

Nice commissions are yours for selling Action Air System of air circulation in coolers. One easy demonstration shows users its many advantages. It's the quick answer to dead air spots, freezing zones, too much or too little moisture and excessive freezing. Pays for itself by reduced shrinkage and spoilage, by less compressor operation and by electricity savings.

EASY TO SELL, makes new customers, creates repeat business. Get the exclusive sales rights in your territory. Write today for attractive proposition.

THE BROWN CORP., 650 Bellevue Ave., Syracuse, N. Y.

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Business News Publishing Co.
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HOUSEHOLD SERVICE MANUALS

- ☐ **No. 1.** Theories and principles of refrigeration explained in simple terms. 144 pages...$1.00
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- ☐ **No. 3.** Detailed data on methods of servicing special types of refrigerators. 144 pages...$1.00
- ☐ **No. 4.** Special service information on 12 makes of household electric refrigerators. 136 pages. Price $1.00

COMMERCIAL SERVICE MANUALS

- ☐ **No. C-1.** The theory and principles of refrigeration presented more completely. 96 pages..$1.00
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* * *

- ☐ **Manual E-1.** Dealing with large refrigeration equipment. This book is valuable to operators of industrial refrigeration plants. 224 pages $2.00
- ☐ **Manual S-1.** Complete refrigeration and air-conditioning specifications of all makes and models through 1936. Contains data on oil and refrigerant charge, belt size, controls, evaporator, and other parts. 512 pages. Price $2.00

AIR CONDITIONING MANUALS

- ☐ **No. A-1.** The principles of summer air conditioning and describing typical air-conditioning systems, performance, etc. 112 pages. Price $1.00
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- ☐ **Manual B-1.** For contractors and estimators. Twenty-five typical air-conditioning jobs explained and estimated. 136 pages..$1.00

BUYER'S GUIDE

- ☐ **No. D-6.** The new 1939 Refrigeration and Air Conditioning Directory containing listings of all manufacturers of complete refrigeration and air-conditioning equipment, parts, materials, and supplies. Complete listings including names of manufacturers and addresses. 220 pages..$1.00

Note: The minimum extra charge for each package of books shipped outside the U. S. is 50 cents. Up to six $1.00 books may be shipped in one package.

Enclosed is $.....

Name .....

Company .....

Address .....

4-19-39

Jobber Activities

Forbes Will Address Pacific Coast Jobbers

LOS ANGELES—Members of the Pacific Coast Refrigeration Jobbers Association will hold their regular spring meeting here on Saturday, April 29, beginning at 9:30 a.m., with membership and classification of the trade scheduled to be the principal topics of discussion.

Principal address of the meeting will be delivered by John S. Forbes, president of Superior Valve & Fittings Co. and of National Refrigeration Parts and Supplies Manufacturers Association, who is making a special trip to the Coast to attend the event.

Firms expected to be present at the meeting are: California Refrigerator Co., San Francisco; Fleck Bros., Vancouver, British Columbia; Frank Gillett Co., Los Angeles; Bill Hieber, Portland, Ore.; Hinshaw Supply Co., Sacramento, Calif.; Marsh Co., Long Beach, Calif.; Pacific Metals Co., San Francisco; Refrigeration & Power Specialties, San Francisco; Refrigeration Service, Inc., Los Angeles; Refrigeration Supplies Distributors, Los Angeles; Refrigerative Supply, Inc., Seattle.

Officers of the West Coast jobber association are: Peter H. Askew, Refrigeration Supplies Distributors, president; R. L. Hinshaw, Hinshaw Supply Co., first vice president; Harold Stearns, Refrigerative Supply, Inc., second vice president; Clarence F. (Sandy) Pratt, California Refrigerator Co., secretary; and B. E. Watters, Pacific Metals Co., treasurer.

Republic Electric Holds Spring Showing

DAVENPORT, Iowa — Republic Electric Co., equipment, parts, and supplies wholesaler, held a Spring showing and sales meeting on its 1939 lines April 7 at its headquarters here, with sessions at 10 a.m. and supper at 6 p.m. J. S. Kimmel, president of the company, and E. L. Bengston, manager of the refrigeration department, were in charge of the affair.

Equipment shown at the meeting included Copeland, Curtis, and Par commercial refrigeration machines, Curtis air conditioners, Copeland household refrigerators, Pelco and Undabar beverage coolers, Seeger and Herrick display cases, Temprite and Copeland water and beer coolers, and Fedders and Peerless coils.

Factory representatives were on hand to assist the jobber firm in its demonstrations of its major lines.

1939 Catalog For Service Men Issued By Airo Supply

CHICAGO — "An ideal buyers guide" is what Airo Supply Co., refrigeration and air-conditioning parts and supplies jobber, terms its 1939 catalog. Airo officials declare that it was prepared with the close cooperation and assistance of service men throughout the industry.

Modernistically designed cover of this catalog is colored in orange and blue, while the inside cover displays a picture of the Airo warehouse.

Addition to the Airo line of a complete stock of replacement parts for Mills compressors and condensing units, Ice-X, new Fedders domestic coils, replacement parts for Brunner compressors, and the newly designed line of A-P valves has been announced by E. W. Scotten, manager.

Copies of the new catalog may be obtained by anyone writing Airo Supply Co. and furnishing some identification of connection with the refrigeration or air-conditioning industry.

Missouri Valley Electric To Handle Allen-Bradley Line

KANSAS CITY, Mo. — Missouri Valley Electric Co. has been appointed distributor of Allen-Bradley motor control equipment in Kansas and western Missouri.

Macklanburg Entertains Panhandle Service Men

AMARILLO, Tex.—Dealers and service men from the Panhandle territory were guests of Macklanburg Brass & Copper Products, Inc., jobbing company with headquarters in Oklahoma City, and two of its suppliers, at a meeting here March 30.

Hosts at the meeting were A. R. Morin, manager of Macklanburg's refrigeration department; Charles Anderson, of Imperial Brass Mfg. Co.; and H. I. Schmidt, of Fedders Mfg. Co. Some 40 men attended the meeting, coming from the Amarillo, Pampa, Borger, and Lubbock, Tex. area.

Discussions and illustrated talks were presented by both Mr. Anderson and Mr. Schmidt on service and sales, with Imperial and Fedders products featured.

Following a "Dutch lunch" at 10:30 p.m., a refrigeration tube-bending contest was held under Mr. Anderson's supervision. First prize went to H. E. Cash, of Amarillo Refrigeration Co., and second money to Cooley Richardson, of Bert Curry Refrigeration Co., Pampa.

CLASSIFIED ADVERTISING

RATES: Fifty words or less in 6-point light-face type only, one insertion, $2.00, additional words four cents each. Three consecutive insertions $5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS AVAILABLE

WANTED: DESIGNER familiar with production sheet metal cabinet design. Prefer someone with experience on domestic refrigerator cabinets. Opening is with a large, fast-growing and progressive concern. Good opportunity for man who has the ability and aggressiveness. Box 1137, Air Conditioning & Refrigeration News.

REFRIGERATION ENGINEER. A progressive manufacturer of low pressure refrigerating equipment in the Middle West has an opening for a young man with college training and several years' experience in the design and application of commercial and air conditioning condensing units. The product is nationally known, the company is financially sound and the organization is small enough to allow rapid advancement to the man capable of carrying the load. Give complete details of your education, experience, personality and present connection in your letter of application. Outstanding applicants will be interviewed at the factory. Applications will be held in strict confidence and our own organization has been notified that this ad is appearing. Box 1141, Air Conditioning & Refrigeration News.

REFRIGERATION ENGINEERS having many years' experience in large American firms and wishing to return to Germany are invited to apply to ALFRED TEVES, Maschinen-und Armaturenfabrik G.m.b.H., Gustavsburgstrasse, Frankfurt am Main, Germany.

REPRESENTATIVES AVAILABLE

SOUTH AFRICAN manufacturers' representative visiting U. S. at present time open for exclusive representation of American refrigerator parts, also of air conditioning package units. Established in this market for past 12 years. References. Manufacturers wanting factory representation in this largest export market please write Box 1139, Air Conditioning & Refrigeration News.

POSITIONS WANTED

YOUNG MAN with extensive education and wide experience desires position as air conditioning sales engineer. Present experience includes design, installation and service of refrigeration and air conditioning equipment, together with three years as instructor in private trade school. While having no direct sales experience, a combination of teaching background, perseverance, ambitious outlook and neat appearance should produce results. Box 1138, Air Conditioning & Refrigeration News.

REFRIGERATION — APPLIANCE — Air Conditioning serviceman. 35 years old, married, technical school graduate, specialized training air conditioning, plus graduation refrigeration service school. Eighteen months' electrical service work, six months' refrigeration, two years' general mechanical experience. Desires permanent position, servicing or combination service-engineering-sales. Some merchandising radio and appliances. All around man. Location, eastern states. Now employed. Change desirable. Salary secondary. Box 1145, Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

COMMERCIAL LINE refrigerator display cases, walk-in coolers, and refrigerators; also direct draw, mechanically-cooled beer coolers. Sell with Ehrlich compressors or with any other make. Attractive discounts, also financing arrangements to help sell. 70 years in business. Write for full information. EHRLICH REFRIGERATOR MFG. CO., St. Joseph, Mo.

BUSINESS OPPORTUNITIES

PARTNER WANTED: Established household refrigerator rebuilding plant, New York City; 1938 volume over $78,000.00; party should be able to invest at least $5,000.00 and handle inside detail work. The reason for partner, business has grown too large for one man. Wonderful opportunity for the right party. Bank and business references exchanged. Box 1140, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

1938 MODEL POMONA Pump—Never used—500 gallons per minute. 25 H.P.—220 volts, 3 phase, unit drive. G.E. motor. This pump is complete, including pipes, shafts, impellors, fittings, starter, and fuses. Total cost of this equipment was over $1,800.00. Make us an offer. HOLLYWOOD CANDY CO., Centralia, Ill.

FOR SALE: Nineteen (19) Cool-Aire self-contained air conditioning units; one half (½) horsepower, three quarters (¾) horsepower, one horsepower. Chieftain compressors and Wagner motors. All new in original box from factory. Will sacrifice to right party. Going into another business. L. A. NALTY, Box 234, Baton Rouge, La.

DEALERS AND SERVICEMEN—Offering Kelvinators, General Electrics, Westinghouses, Frigidaires, as is, as low as $8.00 each, guaranteed fully equipped. Frigidaire compressor units, all sizes, guaranteed in perfect condition. We have brand new boxes, all makes, at below dealers' prices. Write for prices. LANDOR WAREHOUSE, INC., 53 East 10th Street, New York City.

REPAIR SERVICE

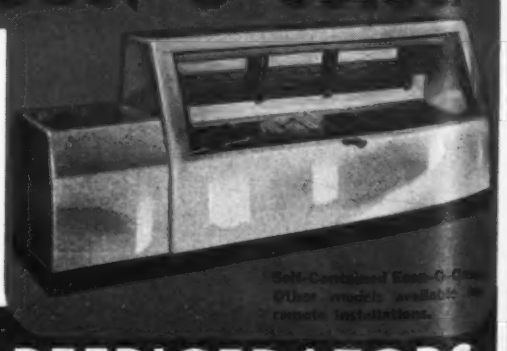
DOMESTIC CONTROLS repaired: Ranco pencil $1.75, Ranco box $2.00, General Electric $2.00, Tag $2.00, Cutler-Hammer $2.00, Penn $2.00, Bishop Babcock, $2.50, Majestic $2.50, Penn magnetic $2.50, G. E. Frigidaire $2.50. In business over 20 years. Our name is our guarantee. UNITED SPEEDOMETER REPAIR CO., INC., 342 West 70th Street, New York City.

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

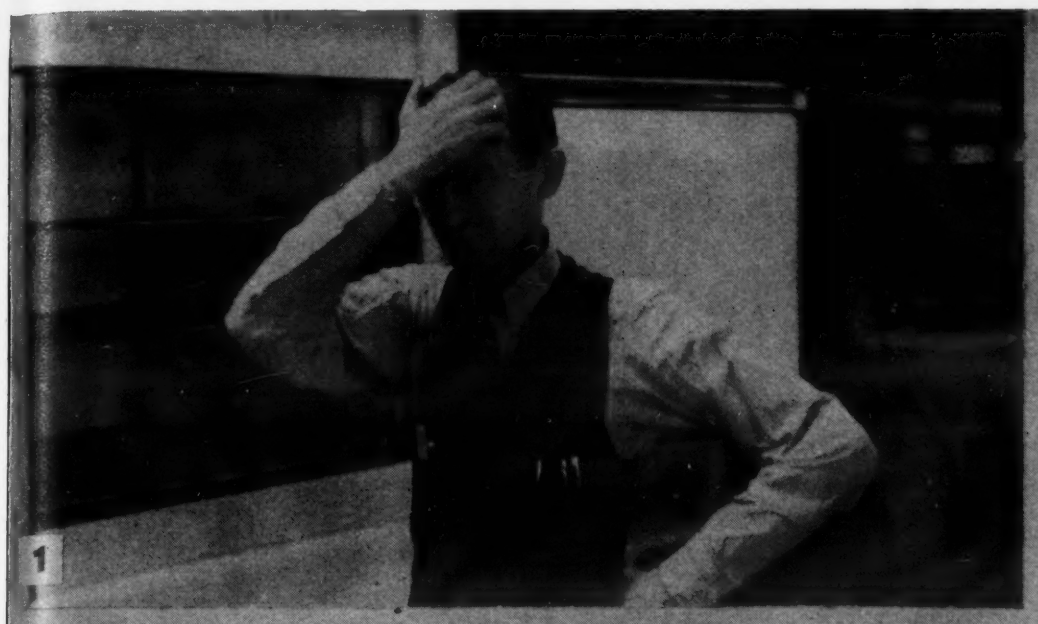
3500
3500 KOCH DEALERS AND SALES REPRESENTATIVES ARE NOW SHOWING THE
NEW ECON-O-CASE

Over 3500 distributors, dealers, sales agents, and salesmen in all parts of the country, and in foreign lands, are promoting the sales of Koch Econ-O-Cases. The line is profitable because it is genuinely GOOD, through and through. . . . Write today for information and full particulars.



KOCH REFRIGERATORS
NORTH KANSAS CITY, MO.

Midwest Makes Cabinets in Modern Plant at Galesburg; Glimpses of Its Men, Machines, and Methods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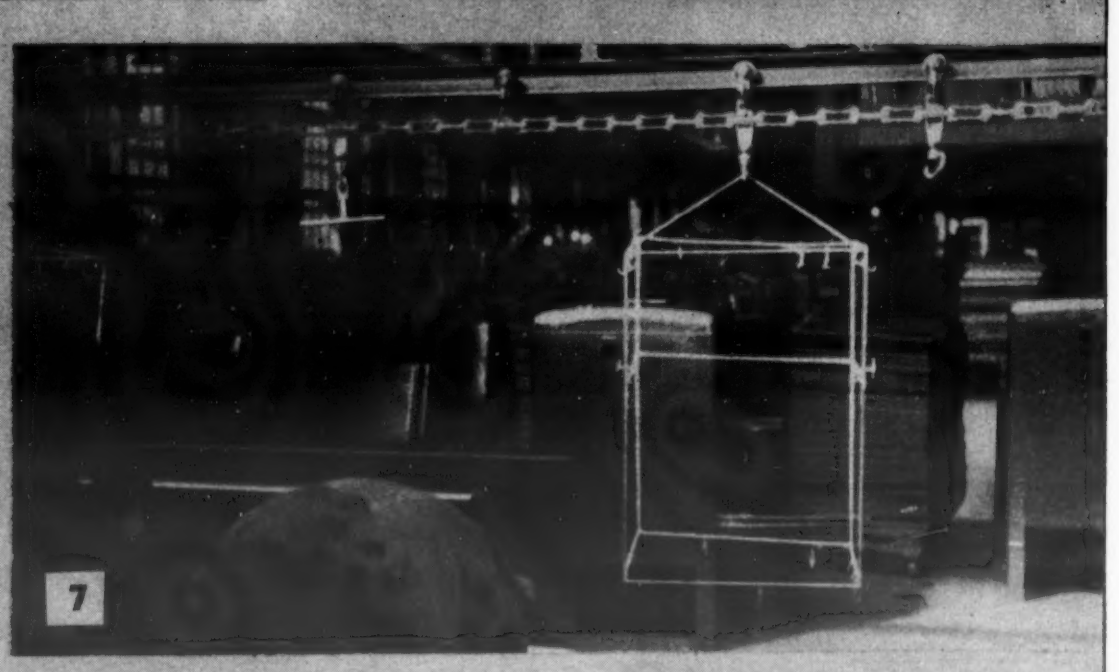
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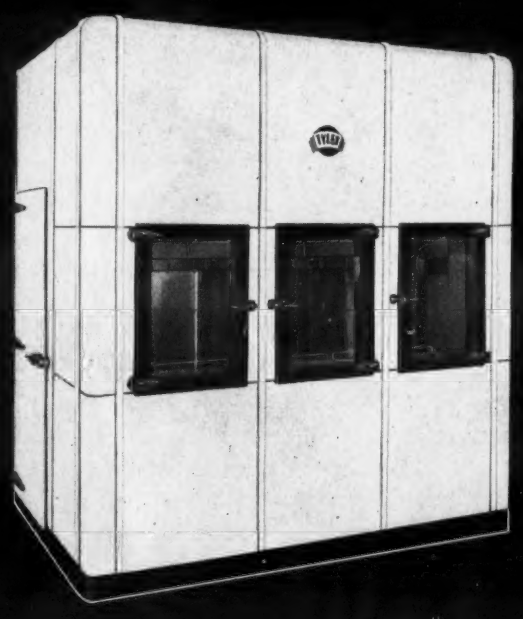
(1 & 2) J. C. Battles, sales and advertising manager of the Midwest Mfg. Co., shows the photographer one of Midwest's new wall-type commercial boxes. (3) L. H. Moos is superintendent of Midwest's new plant. (4) President S. S. Battles, who built the business from scratch and who is active head of all departments. (5) Beverage coolers go down the production line. (6) Welding the seams on a steel cabinet. (7) Household cabinets are made in this plant, too. Most of the company's household refrigerator production is taken by Gale Products, which has an adjoining factory. The conveyor line shown in this picture moves right into the Gale plant, where the refrigerating units are installed in the boxes.

(8) Midwest offices are housed in this little bungalow on the grounds. In the distant right of the picture you can catch a glimpse of the Gale Products plant. (9) Perhaps the most dramatic feature of the Midwest plant is the traveling crane which roars back and forth across the ceiling, bearing parts and supplies from one section to another.

TYLER Original WELDED STEEL Refrigerators



Famous vermin-proof, sectional, steel-clad WALK-IN Coolers. Easy to enlarge from stock parts. Light weight saves on erection, freight and handling costs. Beautifully streamlined.

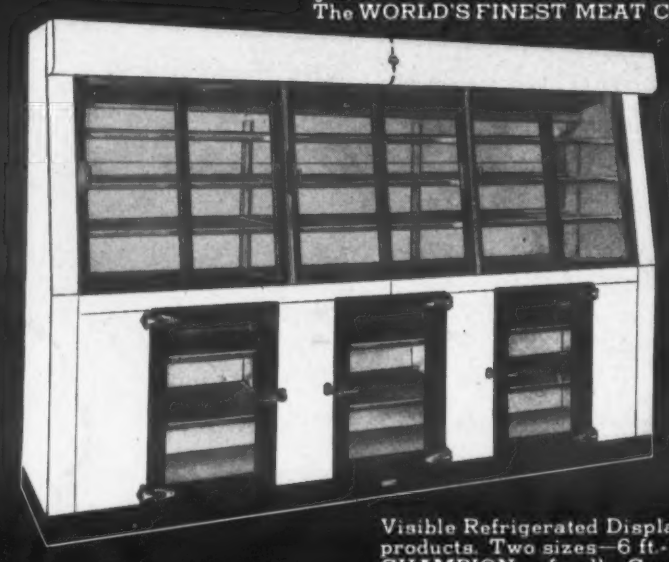
TYLER alone offers this great "Welded Steel" line of food and beverage merchandising cases. Many exclusive features created from experience in making more than 40,000 installations in the finest food stores. Unmatched advantages in EFFICIENT REFRIGERATION, MASS DISPLAY and SANITARY PROTECTION. All at extra low prices made possible by modern standardized quantity production.

Reach-In Boxes designed for latest type mechanical refrigeration. 40% GREATER CAPACITY. Universally useful in food stores, bars and taverns, restaurants, bakeries, institutions, laboratories, etc.

TYLER TREASURE ISLAND SALES FIXTURES

Top and Double Duty Cases in 4-6-8-10-12 ft. lengths. Maximum visibility. Bright lighted interiors. New stream-lined beauty. Clear, triple glass, solid insulation, balanced coils. The WORLD'S FINEST MEAT CASE.

TRIPLE ZONE REFRIGERATED VEGETABLE CASE. Cooled top shelf. Refrigerated Lighted Display, Refrigerated surplus storage. Mirror back bar. Newest and Best for preservation and display of fruits and vegetables.



Visible Refrigerated Display for Dairy products. Two sizes—6 ft.-10 ft. The CHAMPION of all Cases for INCREASING SALES.

For PROFIT Sell TYLER

the FAST SELLING MONEY MAKING line.

ONLY TYLER offers you a complete line of equipment from which a modern food store can be set up—Refrigerated Display Cases . . . Refrigerated Produce Display Cases . . . Dairy Refrigerators . . . Reach-In Boxes . . . Walk-In Coolers . . . Shelving . . . Counters . . . Tables . . . Center Store Displays, etc. WRITE for additional facts.

"MODERN AS TOMORROW"

TYLER FIXTURE CORPORATION . . . NILES, MICHIGAN